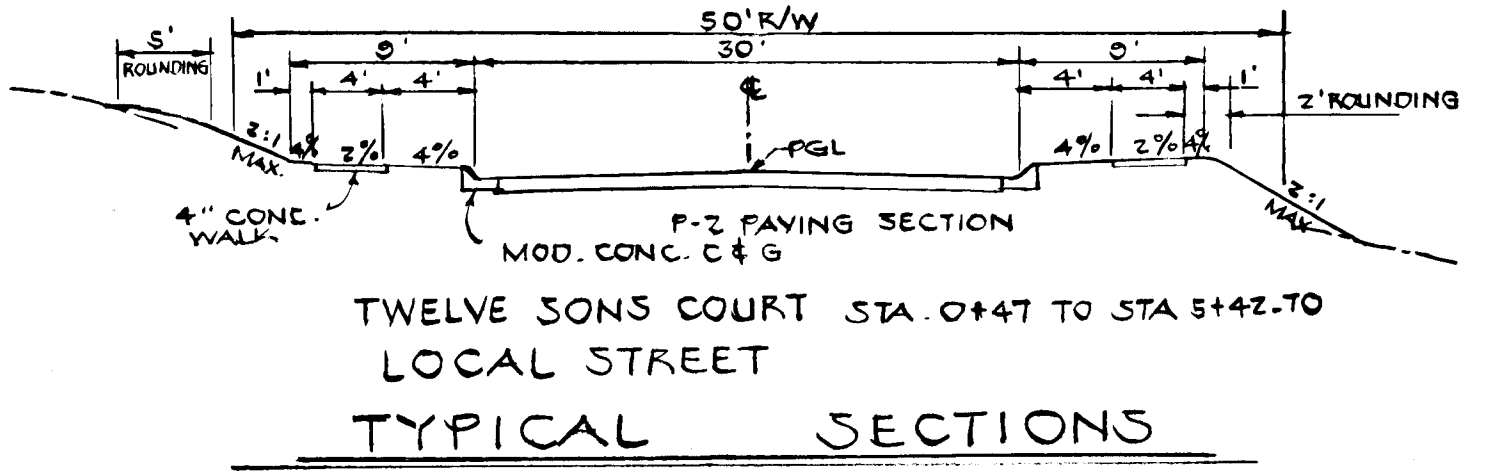
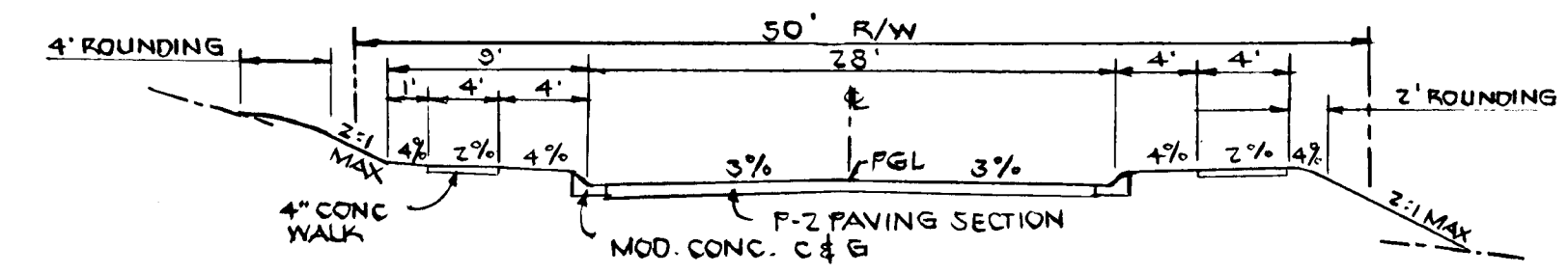
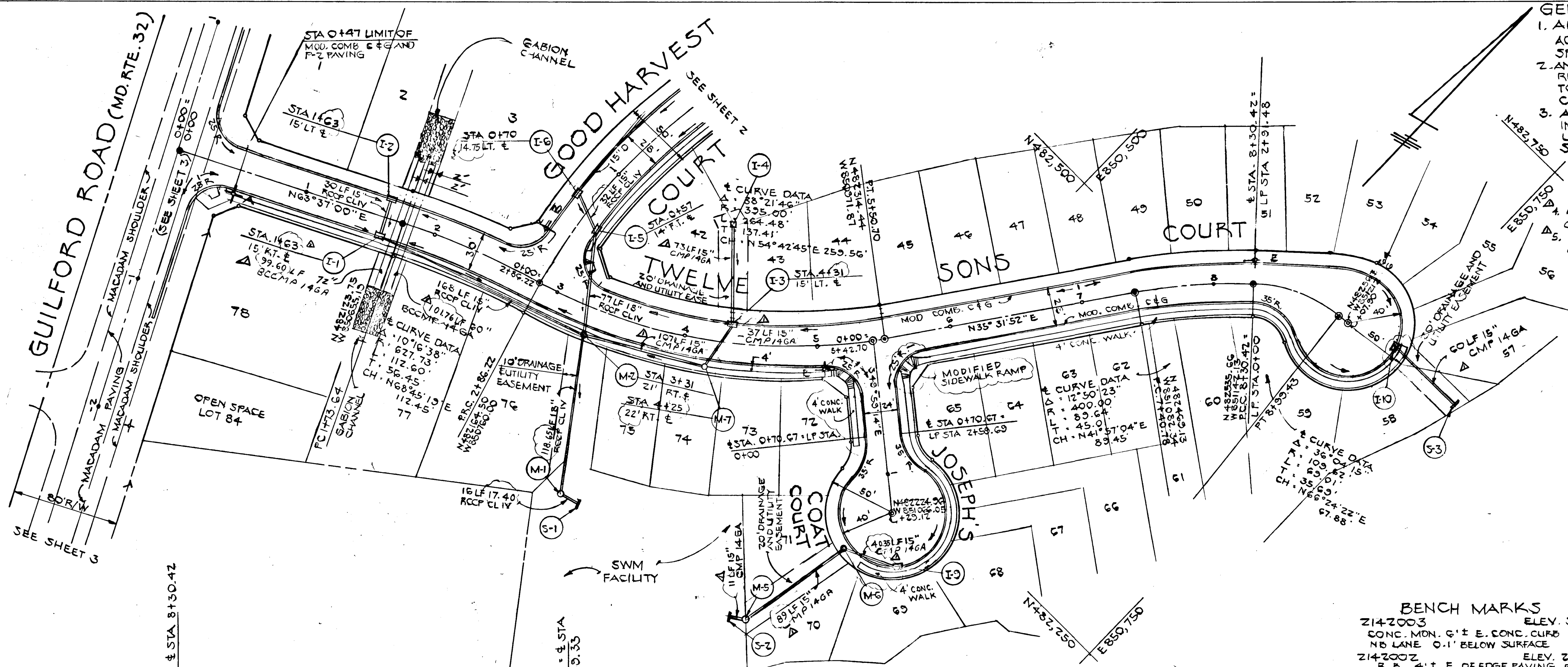
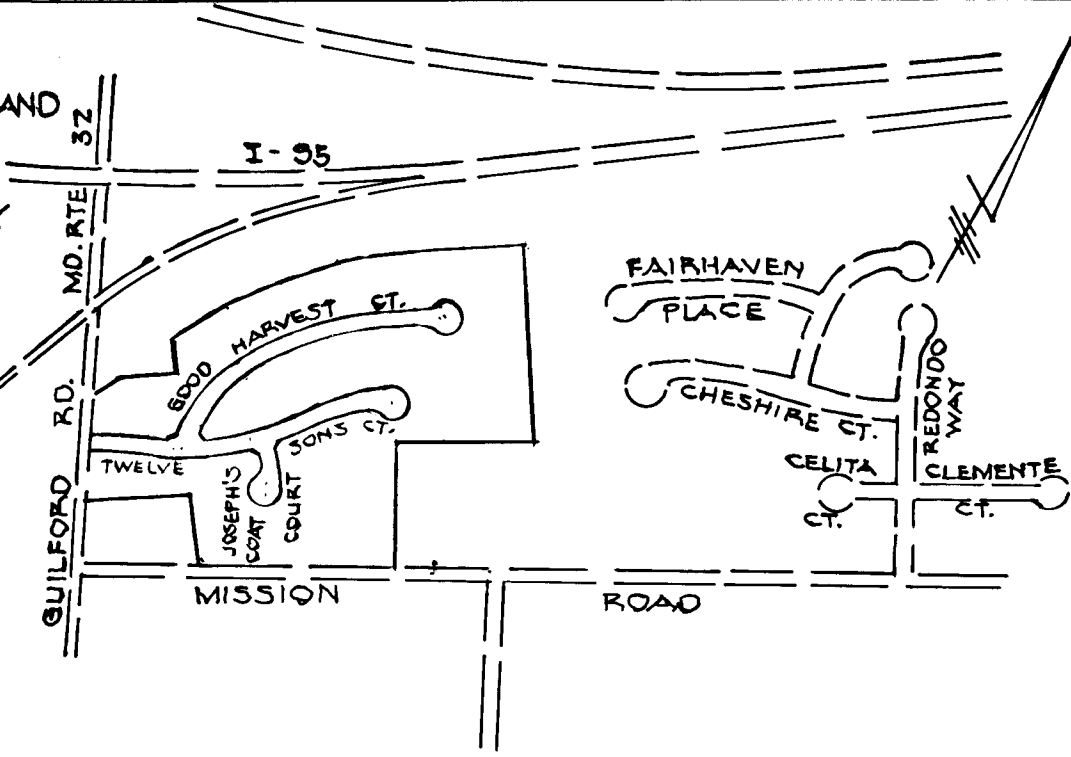
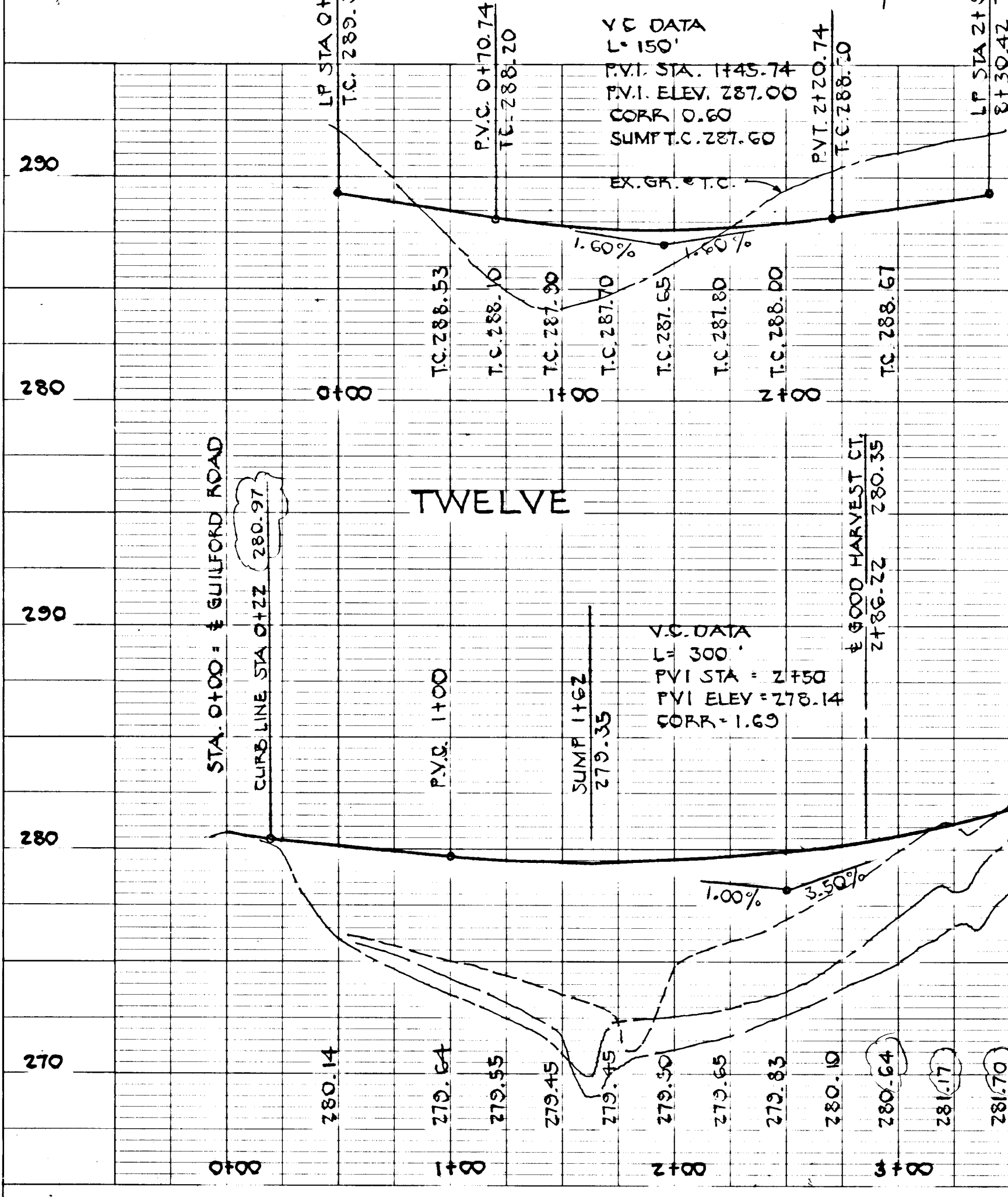


- GENERAL NOTES:**
1. ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE HOWARD COUNTY STDS. AND SPECIFICATIONS FOR CONSTRUCTION.
 2. ANY DAMAGES INCURRED WITHIN THE PUBLIC RIGHT OF WAY SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 3. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS, CURRENT EDITION.



- BENCH MARKS**
- Z14-2003 ELEV. 328.74G
CONC. MON. 6" ± E. CONC. CURB RTE. 26
N5 LANE 0'-1" BELOW SURFACE
 - Z14-2007 ELEV. 260.334
R.B. 2" ± E. OF EDGE PAVING, RTE. 32
800' ± N. OF CARROLL HTS. AVE.

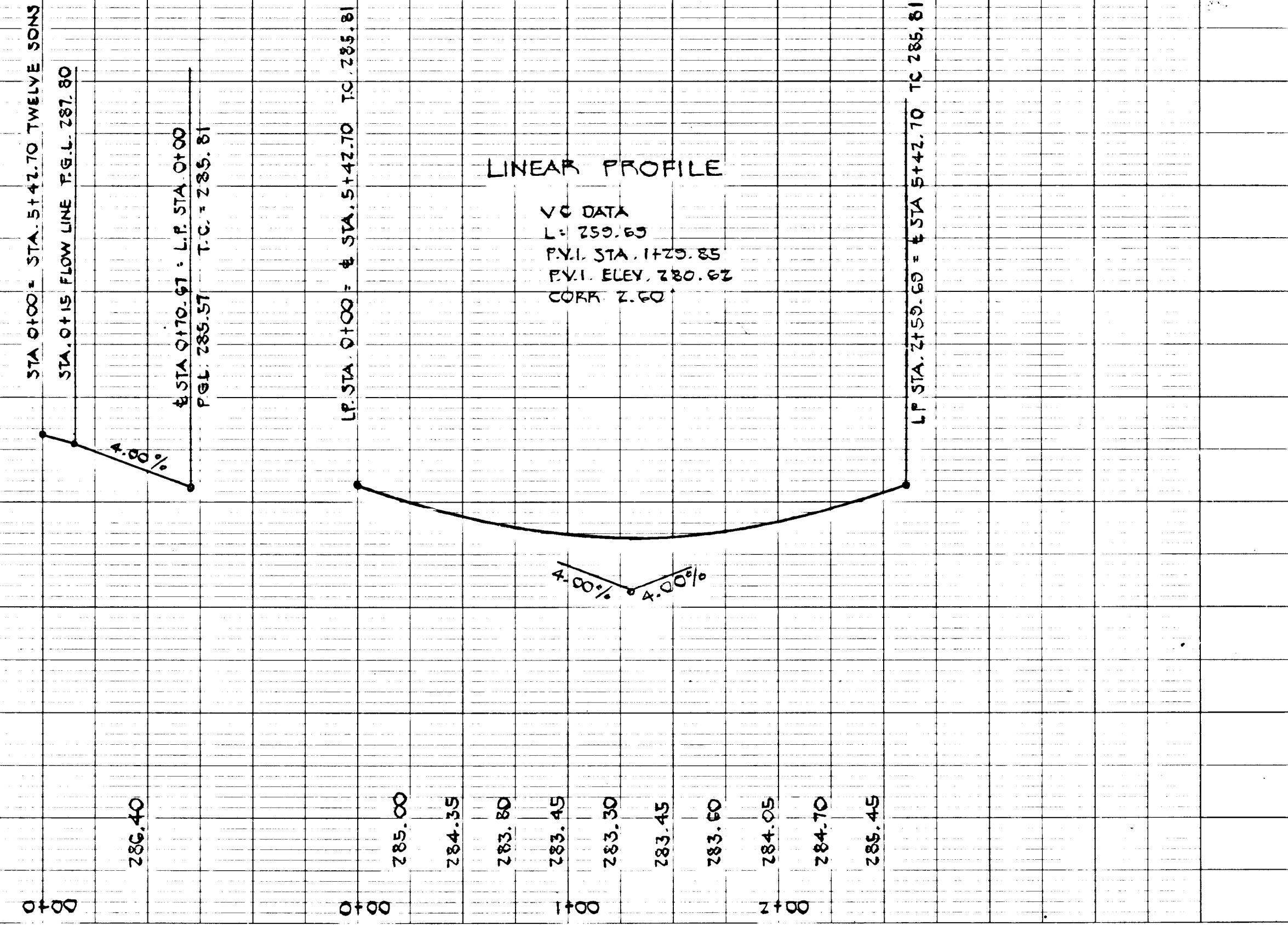
LINEAR PROFILE



PLAN
SCALE 1" = 50'

- OPEN SPACE LOT 83 DRAINAGE UTILITY AND STORM WATER MANAGEMENT FACILITY BASEMENT
- + A DENOTES 250 WATT MERCURY VAPOR LAMP PENDANT MOUNTED ON 30" GALVANIZED STEEL POLE
 - + B DENOTES 175 WATT MERCURY VAPOR LAMP POST TOP FIXTURE 14" GRAY FIBERGLASS POLE

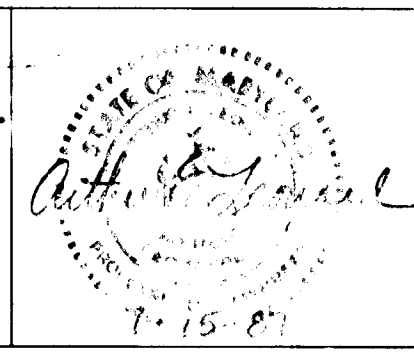
JOSEPH'S COAT COURT



1342

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
CHIEF: LAND DEVELOPMENT DIV. DATE: 2/1/88
CHIEF: BUREAU OF HIGHWAYS DATE: 2/1/88
CHIEF: BUREAU OF ENGINEERING DATE: 2/1/88
APPROVED: OFFICE OF PLANNING & ZONING
CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/88

M&H DEVELOPMENT ENG., INC.
200 E. JOPPA ROAD
TOWSON, MARYLAND 21204
828-9060

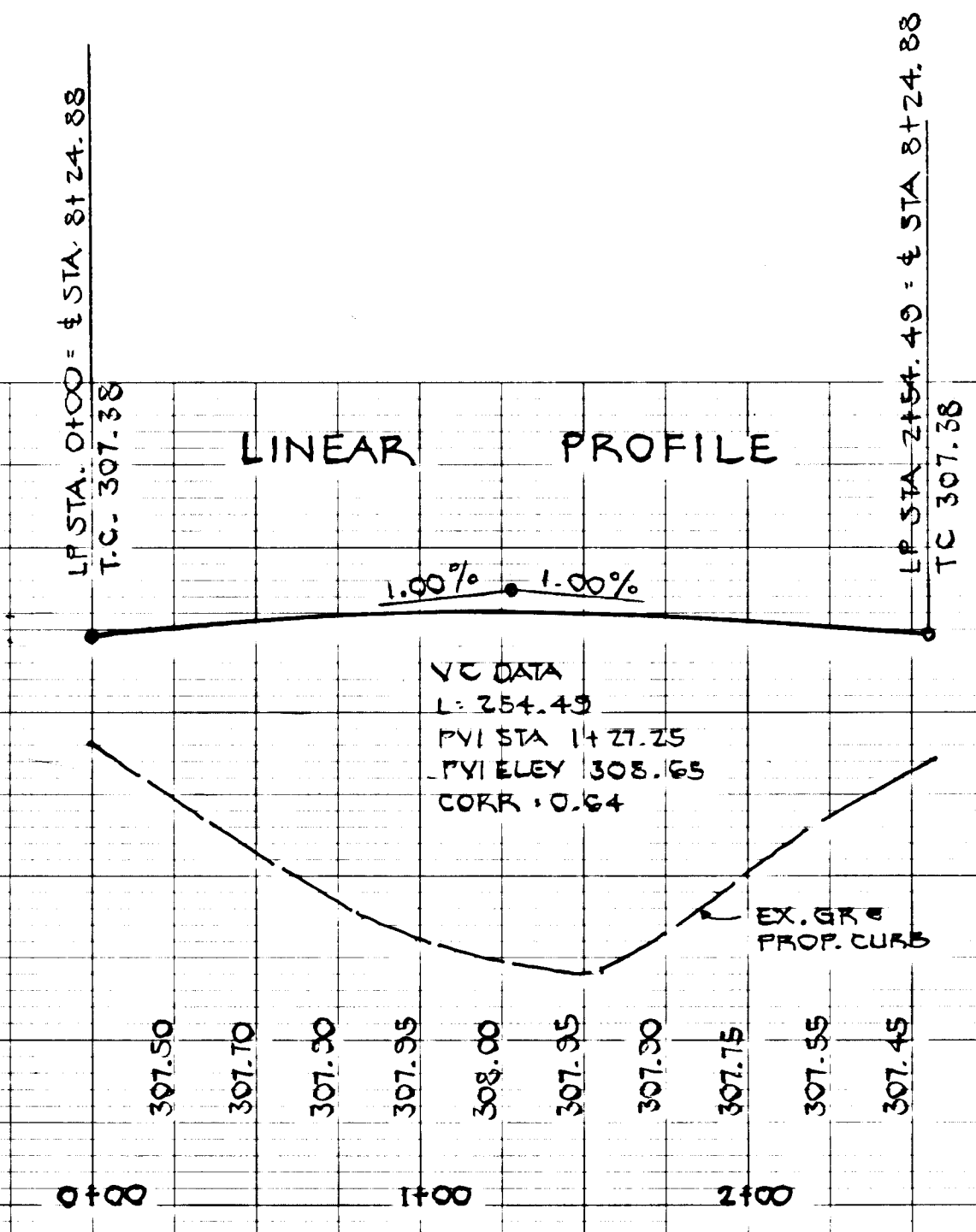
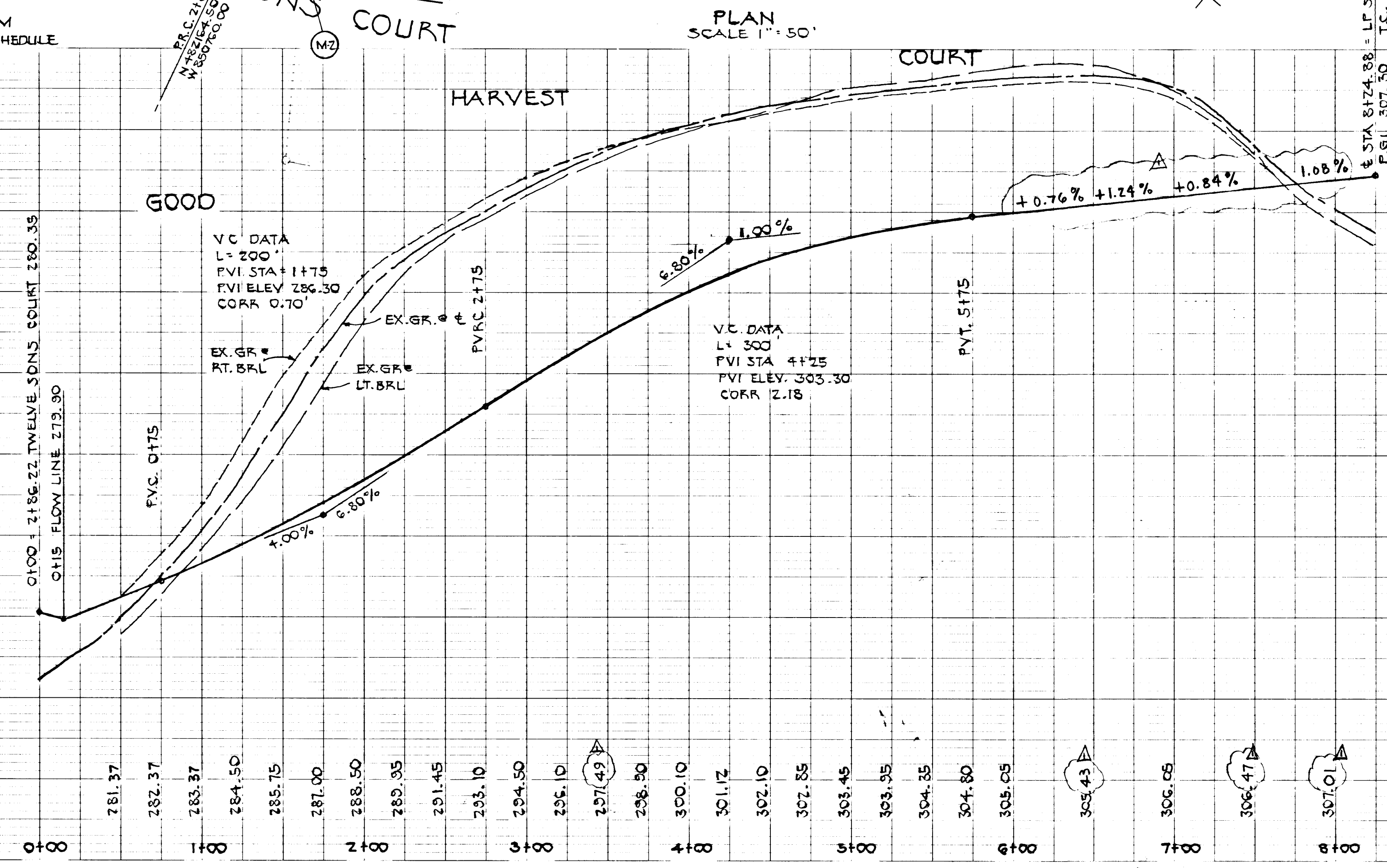
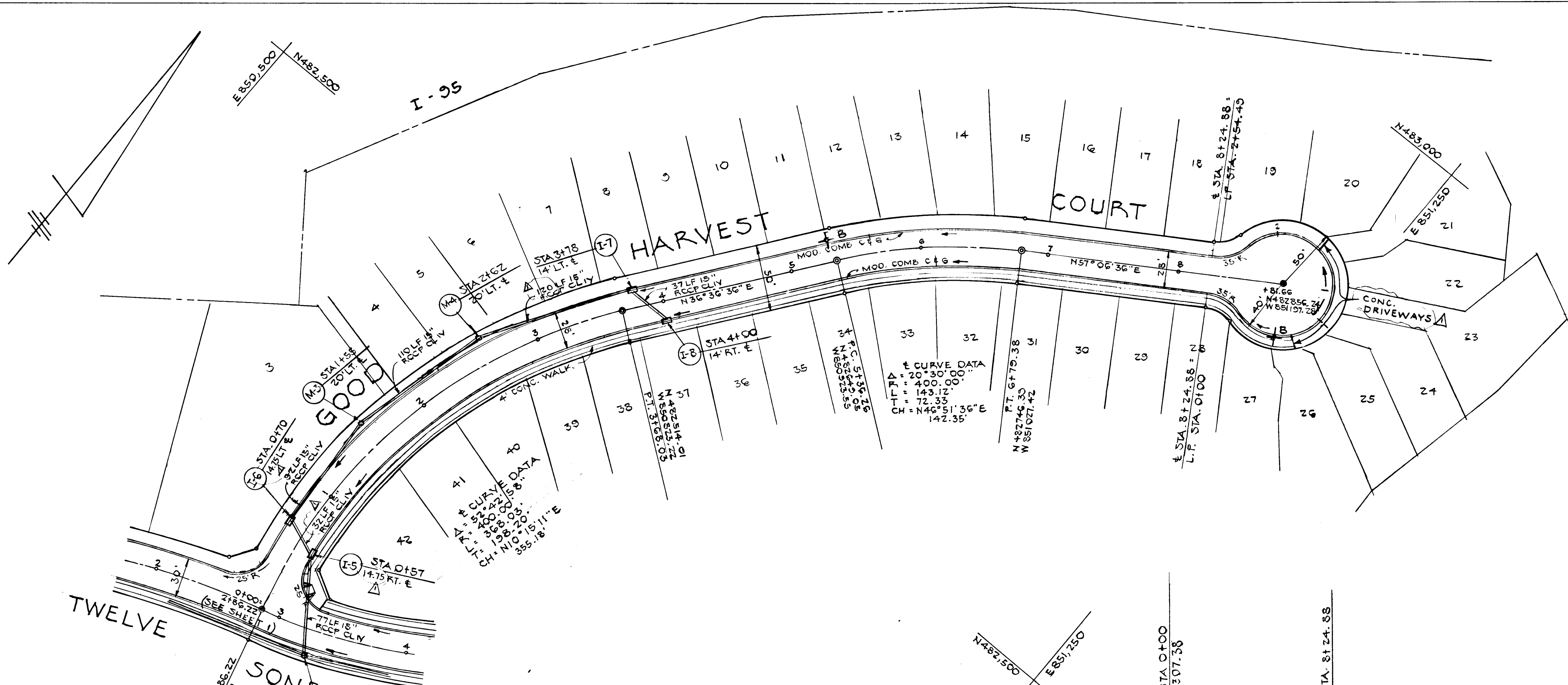


DES: O.B.	CHK: V.J.M.	DATE:	BY:	NO:	REVISION:	DATE:	600 SCALE MAP NO.:	BLOCK NO.:
LINK								
LUB								
PER ABEY GIAMA 5/23/88								
ADDED CONC. WALKS & INLET, RELOCATED MH MT								
5/24/88								
9/25/91								

PLAN AND PROFILE
TWELVE SONS CT.
JOSEPH'S COAT COURT

SIGNAL HILL
ELECTION DISTRICT 6
HOWARD COUNTY, MD

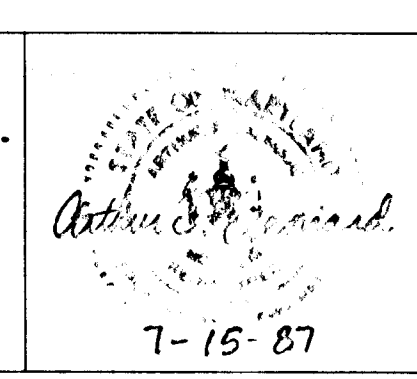
SCALE AS SHOWN
SHEET 1 OF 12



1342

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: 10/23/88
 CHIEF: BUREAU OF HIGHWAYS DATE: 12/20/87
 CHIEF: BUREAU OF ENGINEERING DATE: 12/20/87
 APPROVED: OFFICE OF PLANNING & ZONING
 CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/88

M&H DEVELOPMENT ENG., INC.
 200 E. JOPPA ROAD
 TOWSON, MARYLAND 21204
 828-3060

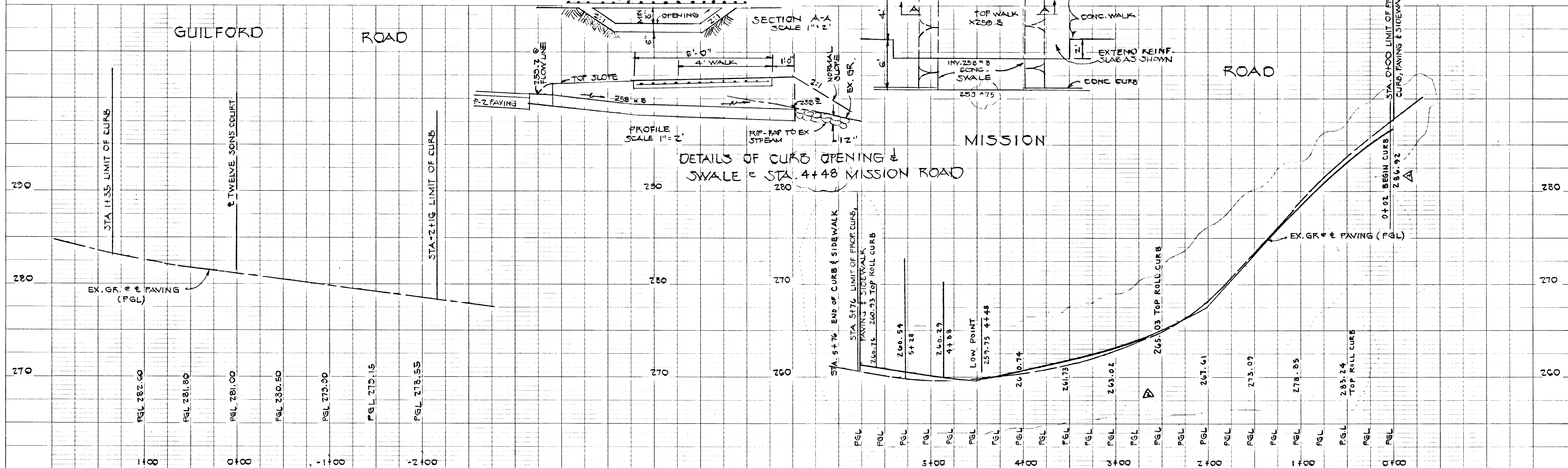
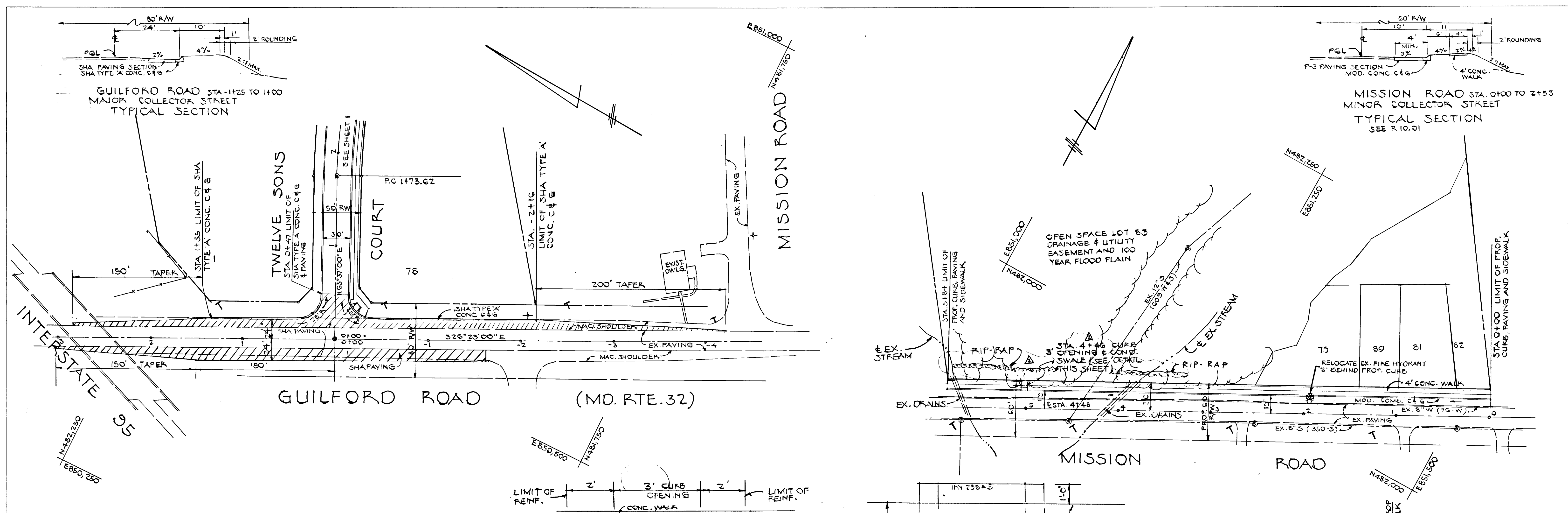


DES: D.B.	LJB	ADDED CONC. DRIVEWAYS	9/25/87
DRN: D.B.			
CHK: V.J.M.			
DATE:	BY:	NO:	REVISION:

**PLAN AND PROFILE
 GOOD HARVEST CT.**

**SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MD.**

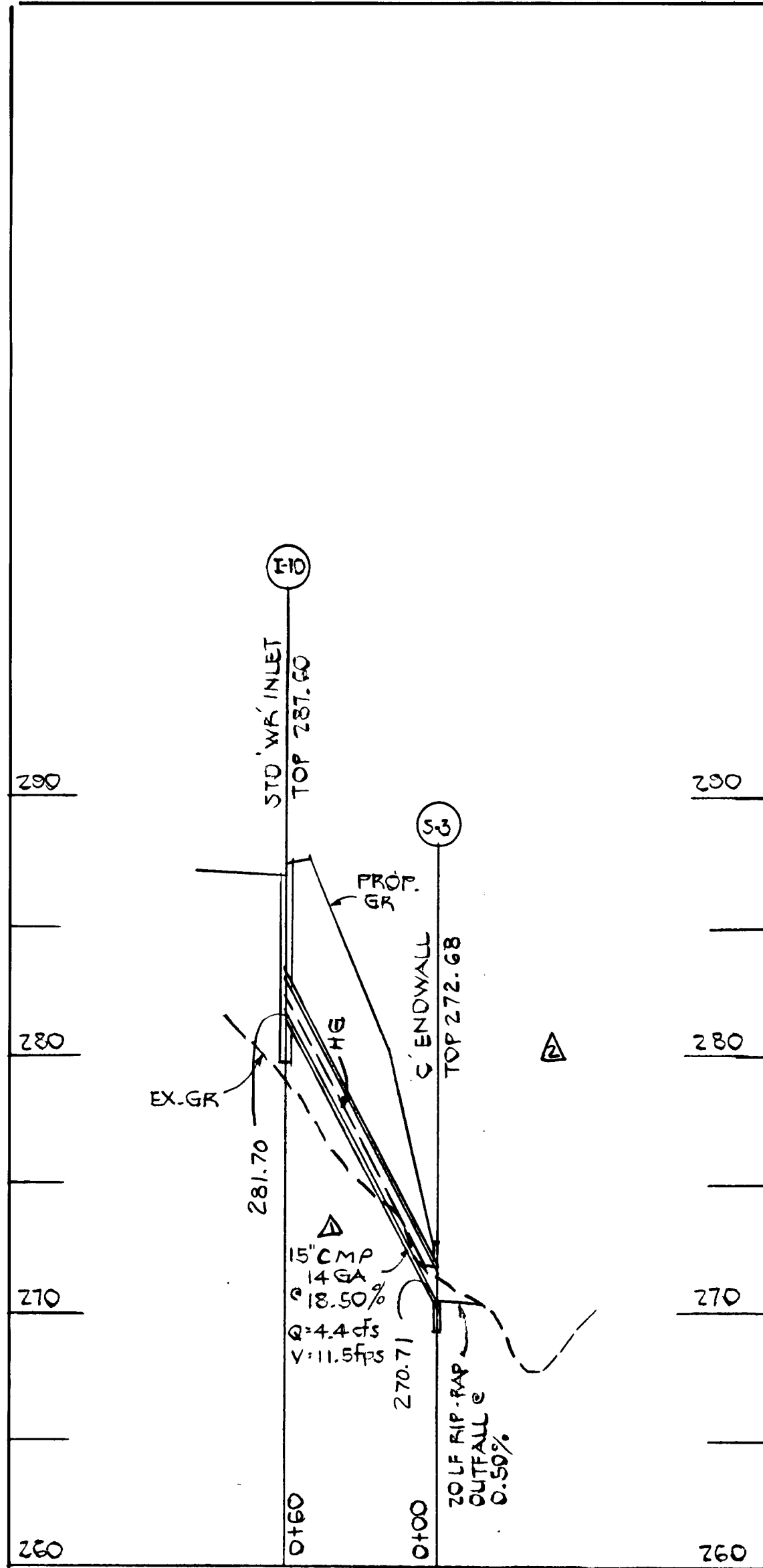
SCALE AS SHOWN
 SHEET 2 OF 12



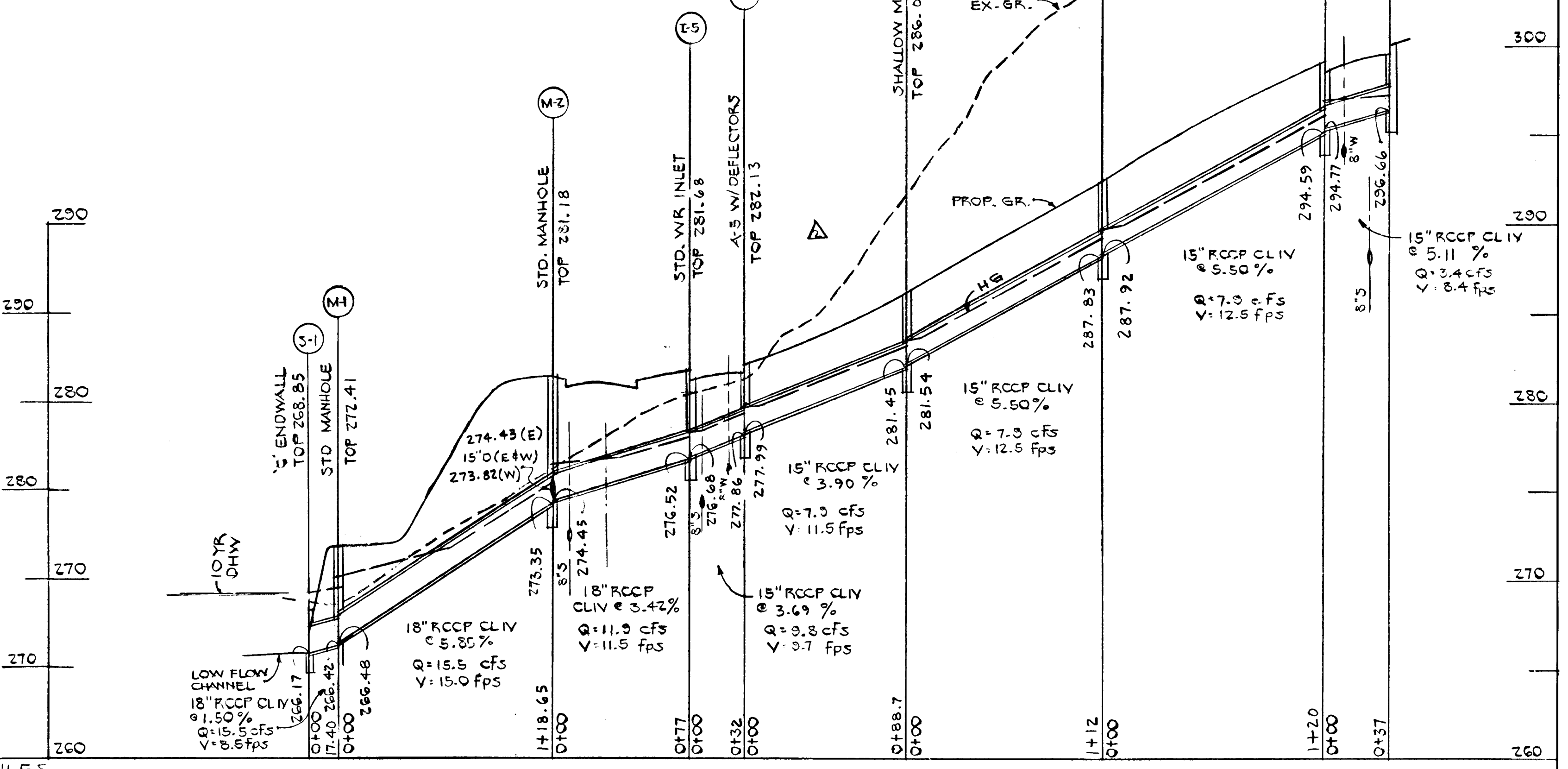
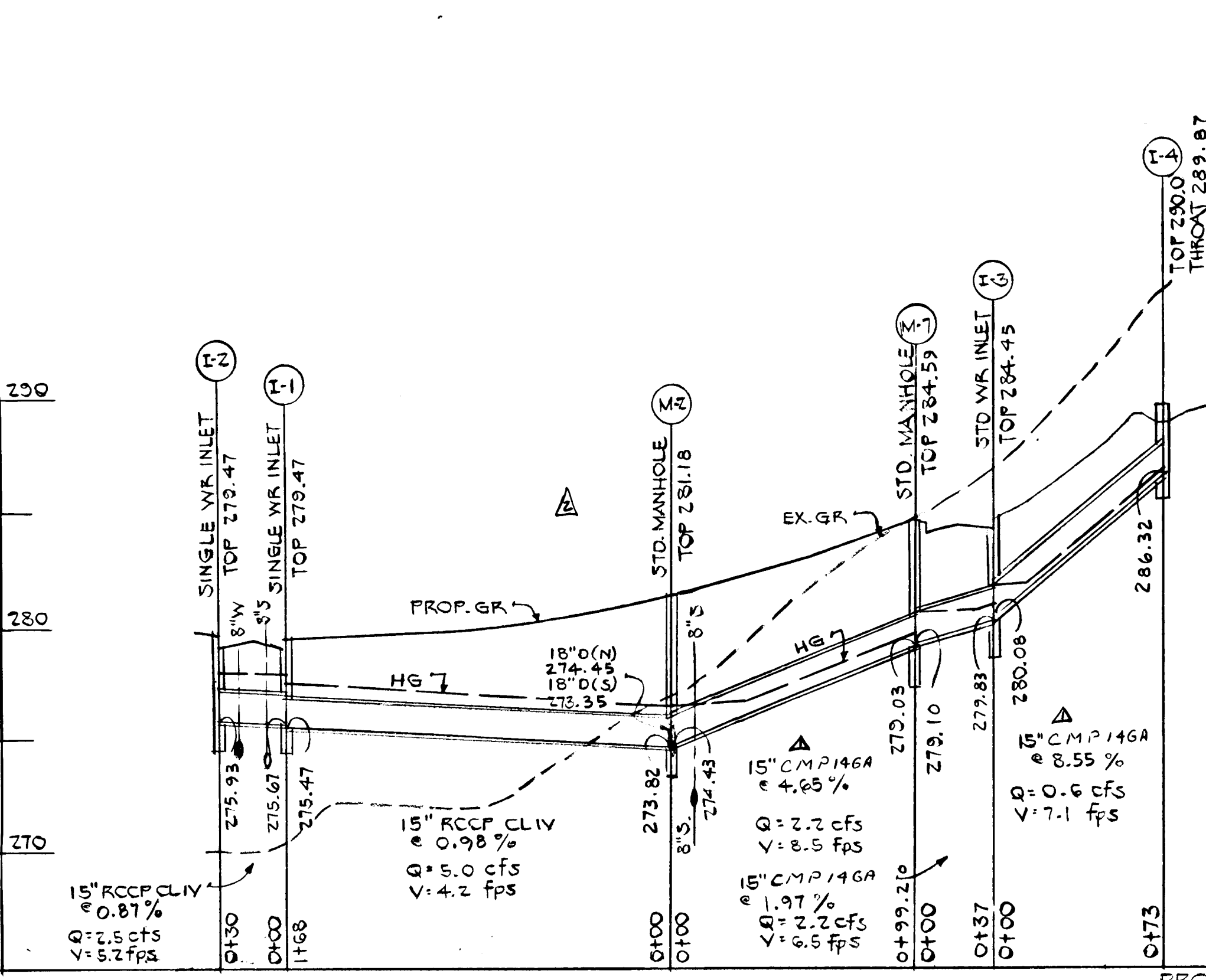
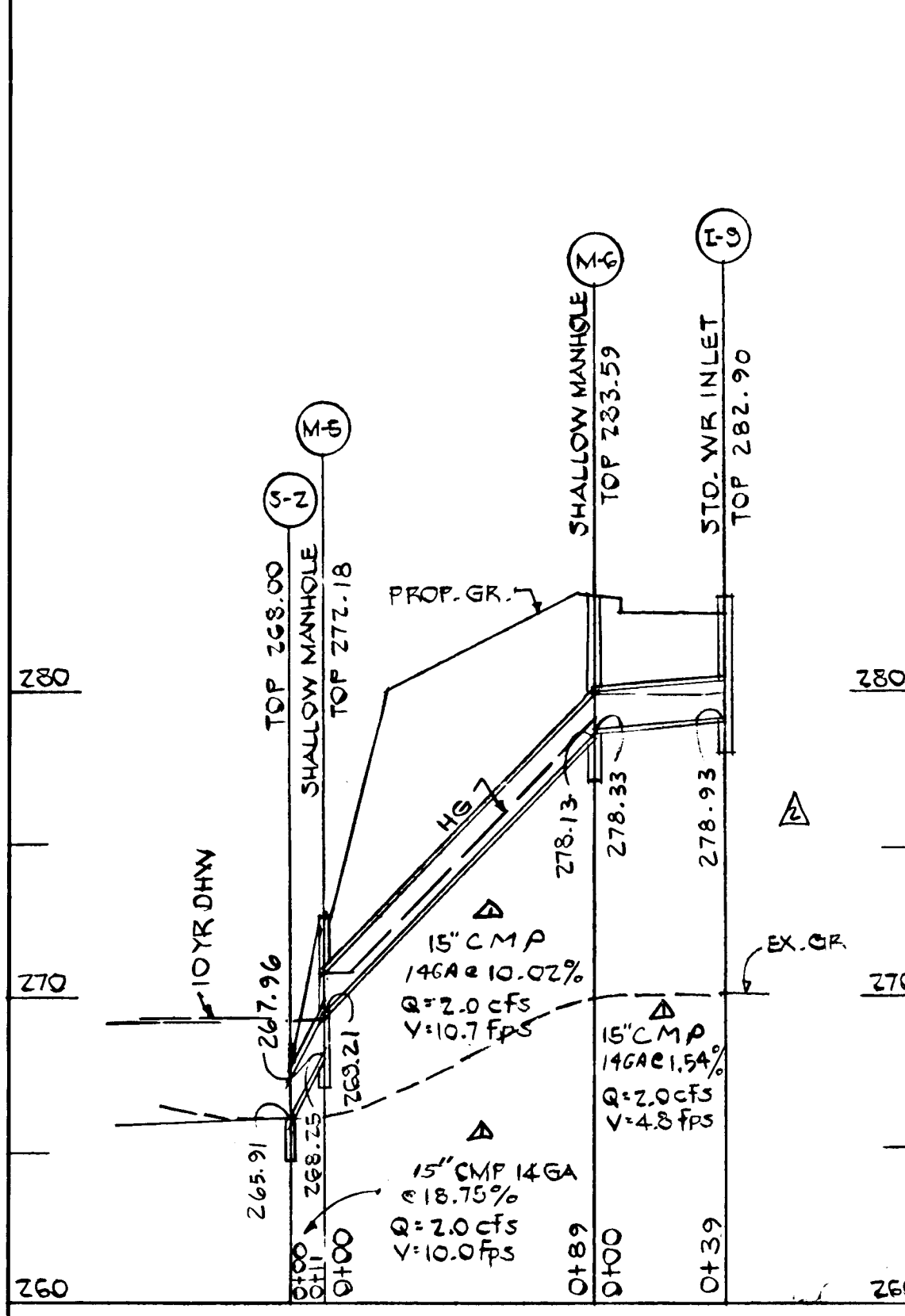
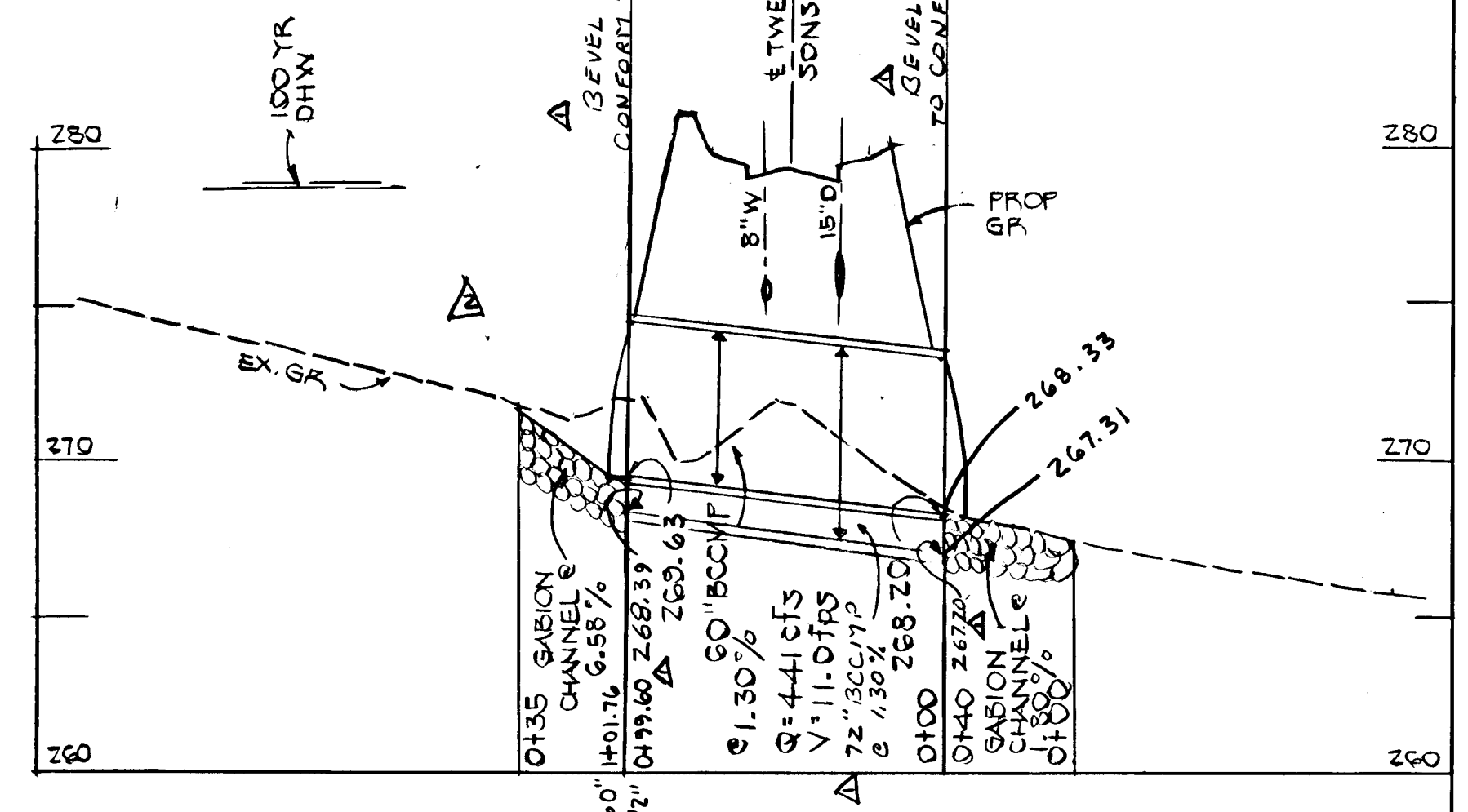
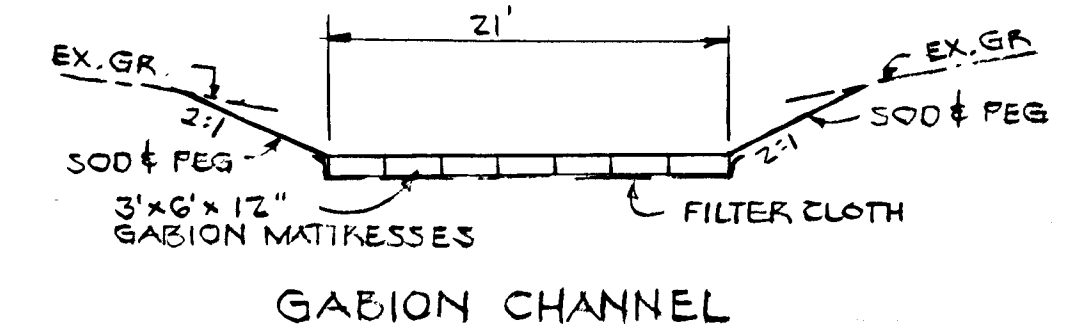
APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS CHIEF: LAND DEVELOPMENT DIV., DATE: 12-30-87 CHIEF: BUREAU OF ENGINEERING, DATE: 12-30-87 APPROVED: OFFICE OF PLANNING & ZONING DATE: 2/1/88		M&H DEVELOPMENT ENG., INC. 200 E. JOPPA ROAD TOWSON, MARYLAND 21204 828-9000		DES: D.B. DRN: D.B. CHK: V.J.M. DATE:		LUB DB I BY NO REVISION		REVISED PROFILE AND CURB OPENING @ STA. 5+00 MISSION ROAD DATE: 9-25-91 1-19-83		PLAN AND PROFILE GUILFORD ROAD MISSION ROAD		SIGNAL HILL ELECTION DISTRICT 6 HOWARD COUNTY, MD.		SCALE AS SHOWN SHEET 3 OF 12	
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F-88-19 AS-BUILT 9-25-91

1342



STRUCTURE SCHEDULE					
NO.	TYPE	INV. IN	INV. OUT	TOP	REMARKS
I-1	SINGLE WR	275.57	275.47	279.47	SO 4.34
I-2	"	-	275.93	279.47	SO 4.34
I-3	STD. WR	280.08	279.83	284.45	SO 4.34
I-4	O-INLET	-	286.32	289.87	SO 4.11
I-5	STD. WR	276.68	276.52	281.68	SO 4.34
I-6	A-S W/DEFLECTORS	277.99	277.86	282.13	SO 4.01 & 4.63
I-7	"	294.72	294.59	298.97	"
I-8	"	-	296.66	300.36	"
I-9	STD. WR	-	278.93	282.90	SO 4.34
I-10	"	-	281.70	287.60	"
M-1	STD. MH	266.48	266.42	272.41	G.S. 01
M-2	"	273.82	273.35	281.18	"
M-3	SHALLOW MH	281.54	281.45	286.01	G.S. 05
M-4	"	287.92	287.83	292.35	"
M-5	"	290.21	287.96	272.18	"
M-6	"	278.33	278.13	283.59	"
M-7	STD. MH	270.10	270.03	284.69	G.S. 01
S-1	C ENDWALL	-	266.14	268.85	SO 5.21
S-2	"	-	265.91	268.00	"
S-3	"	-	270.71	272.68	"



APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: 2/1/88
 CHIEF: BUREAU OF HIGHWAYS DATE: 2/1/88
 CHIEF: BUREAU OF ENGINEERING DATE: 2/1/88
 CHIEF: OFFICE OF PLANNING & ZONING DATE: 2/1/88
 CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/88

M&H DEVELOPMENT ENG., INC.
 200 E. JOPPA ROAD
 TOWSON, MARYLAND 21204
 878-9060

Arthur E. Loman
 7-15-87

DES:	WHK	PER RAEY CIEMA 5/23/88	5/24/88
DRN:	LUB	REVISED PROFILES & STRUCTURE SCHEDULE	9/25/91
CHK:			
DATE:	BY	NO.	

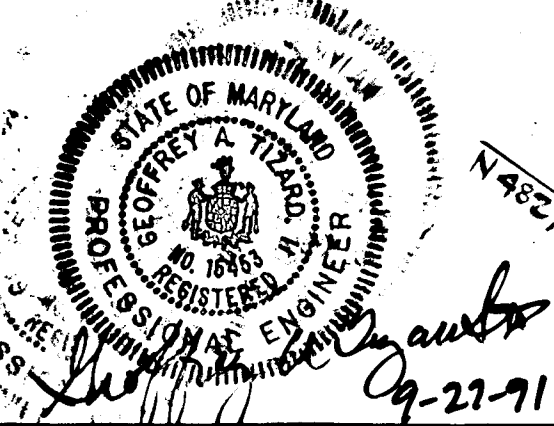
STORM DRAIN PROFILES AND DETAILS

SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MO.
 SCALE AS SHOWN
 SHEET 4 OF 13



NOTE: ALL LOTS SHALL HAVE AT LEAST 4000 SQ. FT. OF AREA WITH SLOPES OF LESS THAN 25 PERCENT UPON FINAL GRADING AS SHOWN ON THE S.O.P. RETAINING WALLS AND/OR LANDSCAPING TIES WILL NOT BE USED TO ACHIEVE SLOPES OF LESS THAN 25 PERCENT.

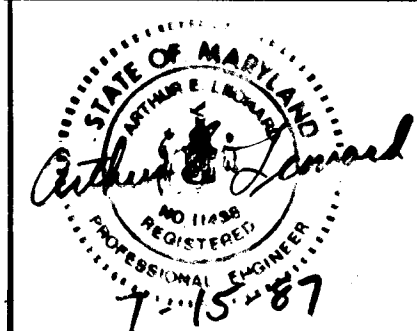
PLAN
SCALE 1" = 50'



1346

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: 8/22/91
 CHIEF: BUREAU OF HIGHWAYS DATE: 8/22/91
 CHIEF: BUREAU OF ENGINEERING DATE: 8/22/91
 APPROVED: OFFICE OF PLANNING & ZONING
 CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/88

HUOKINS ASSOCIATES, INC.
 200 E. JOPPA ROAD
 TOWSON, MARYLAND 21204
 828-3060



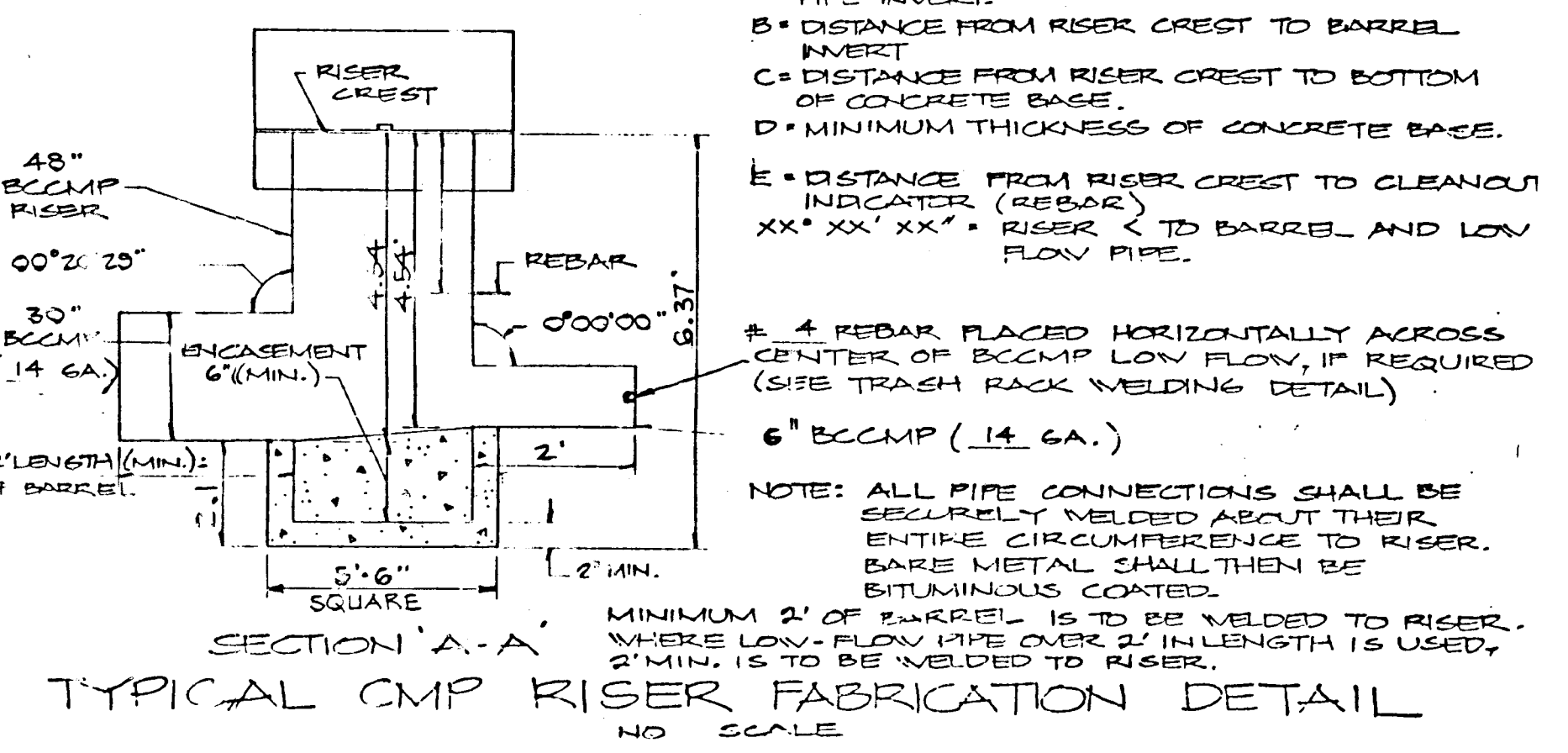
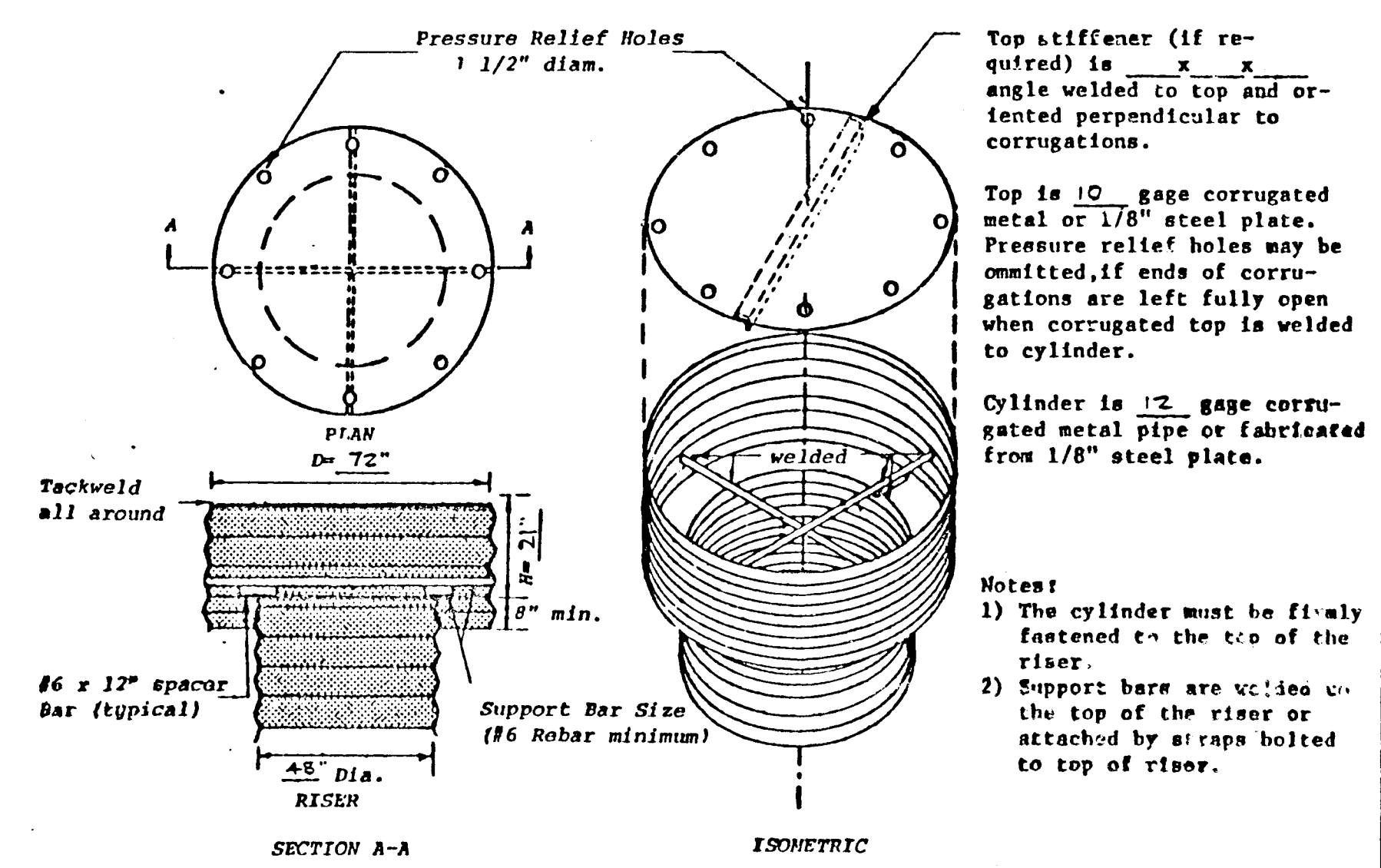
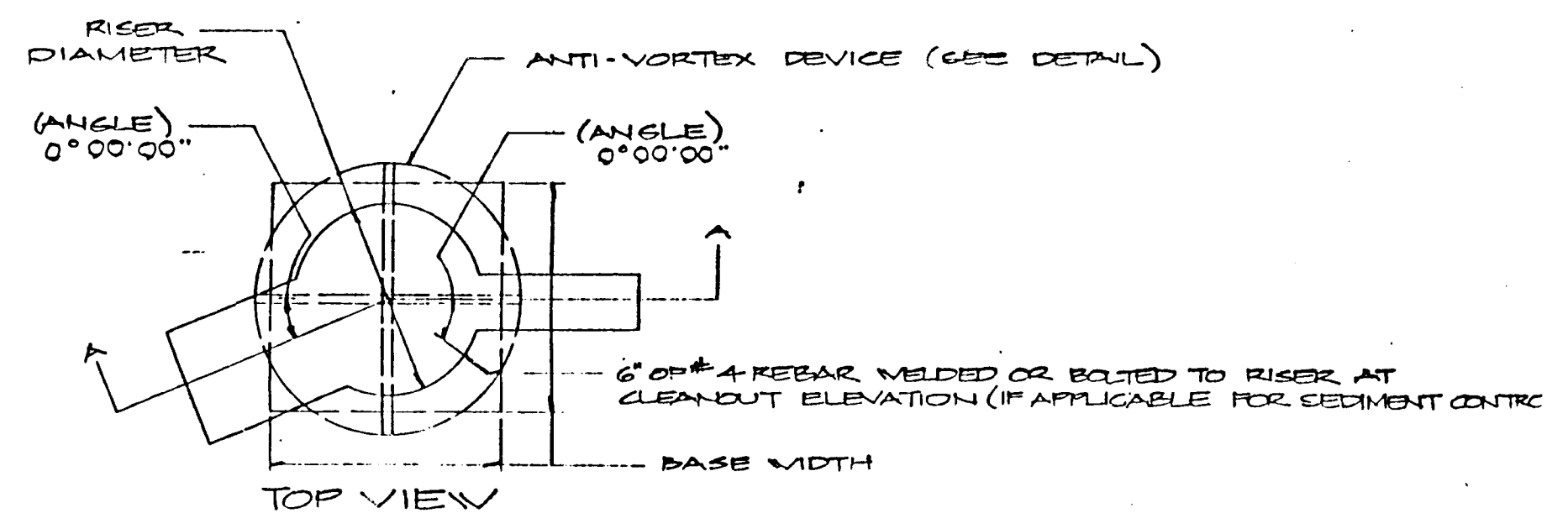
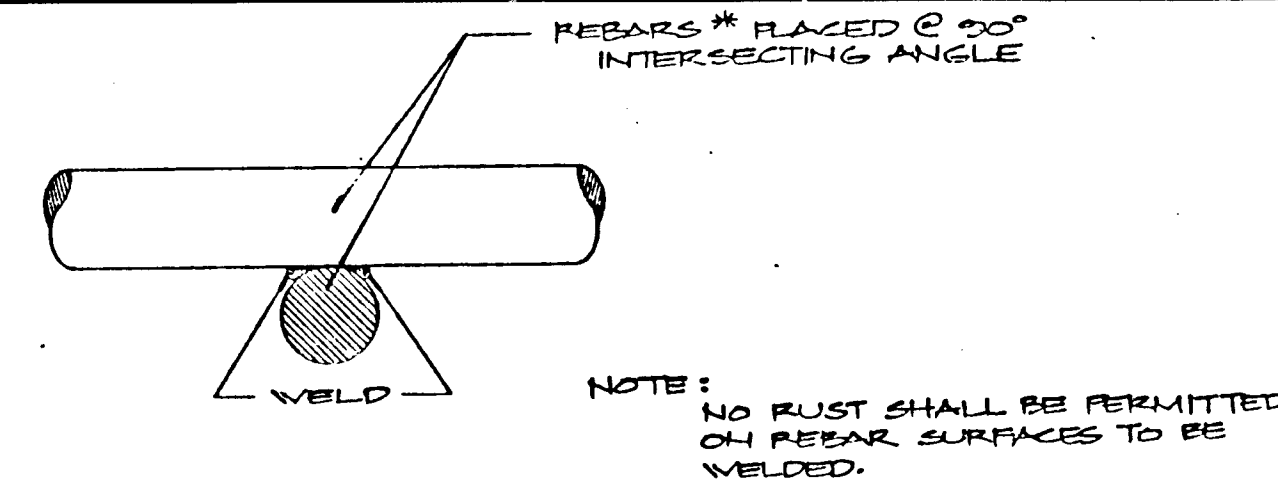
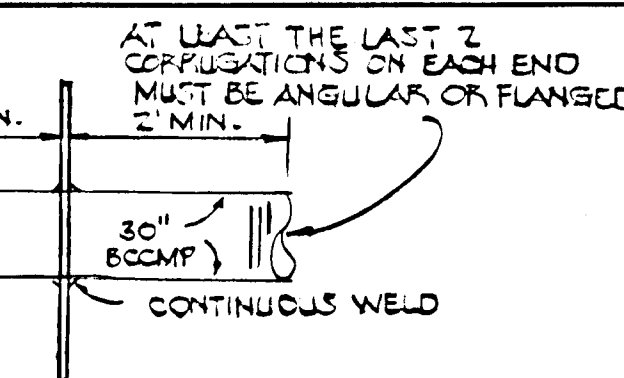
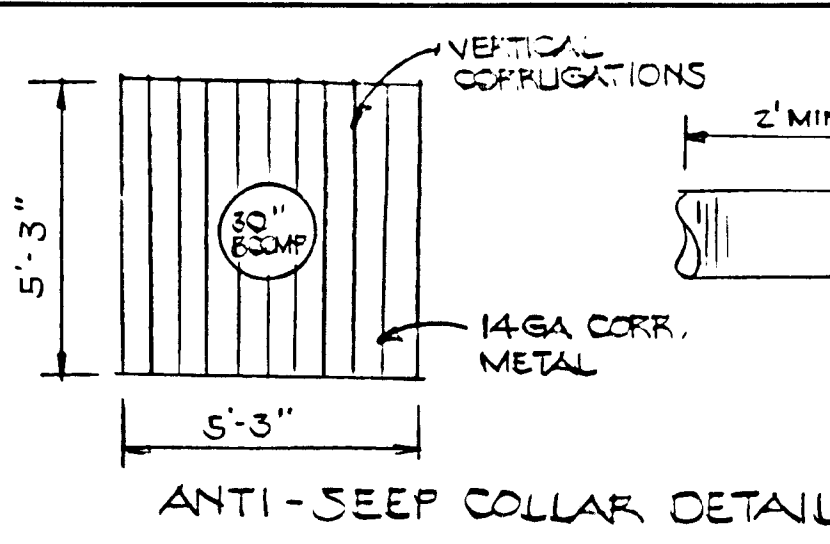
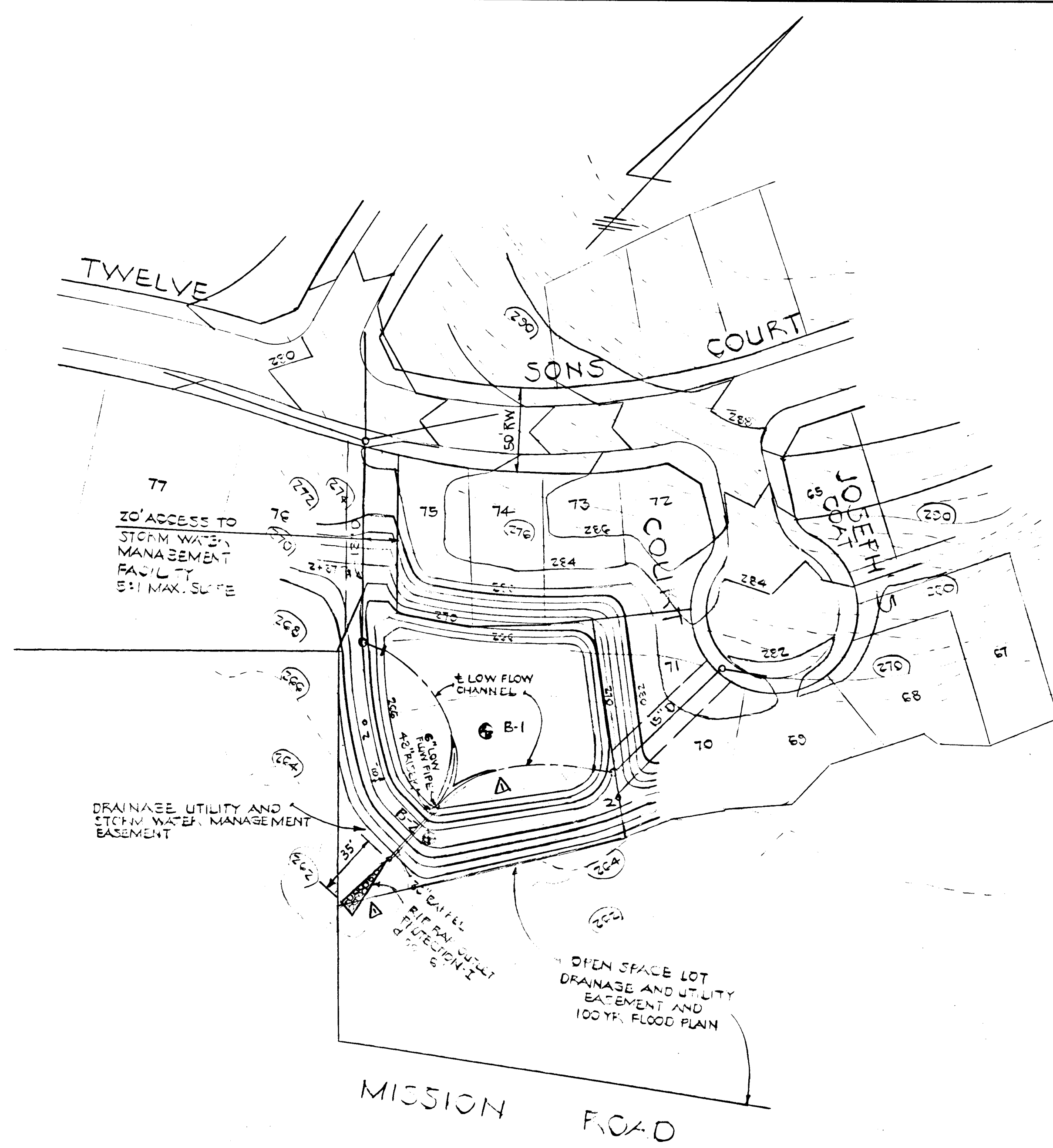
DES: D.B.			
DRN: D.B.			
CHK: V.J.M.			
DATE:	BY:	NO.	REVISION

MASS GRADING
 PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

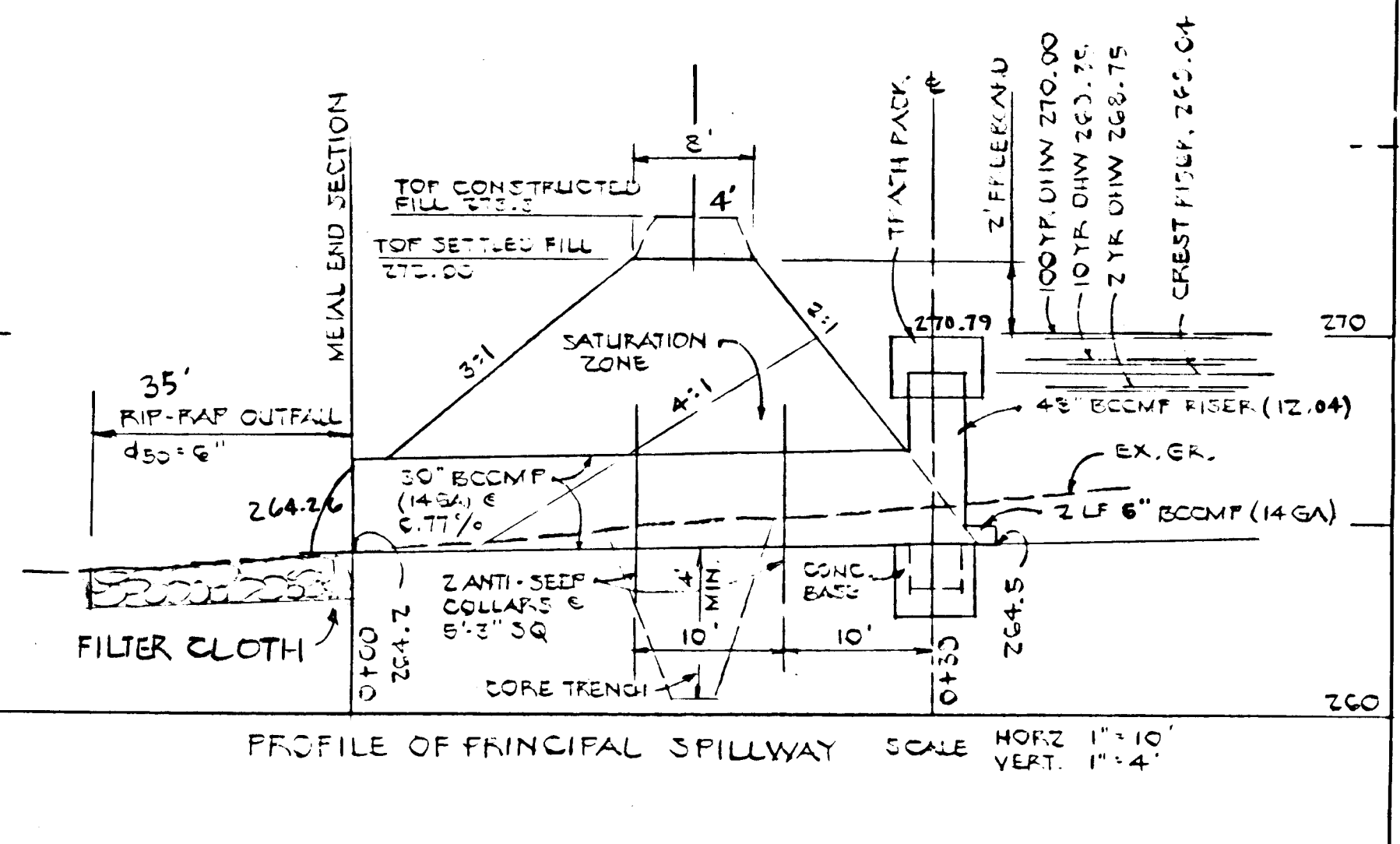
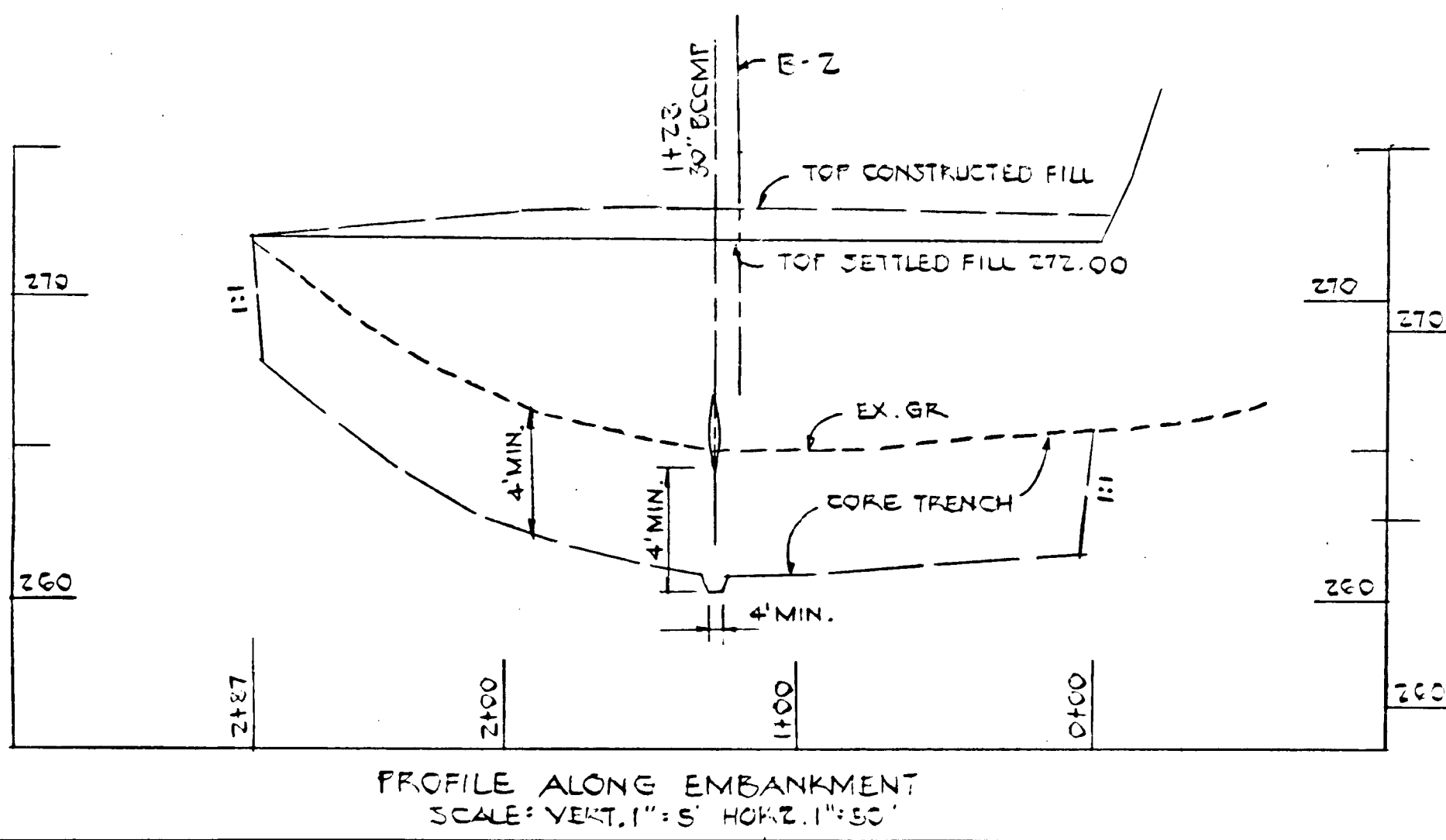
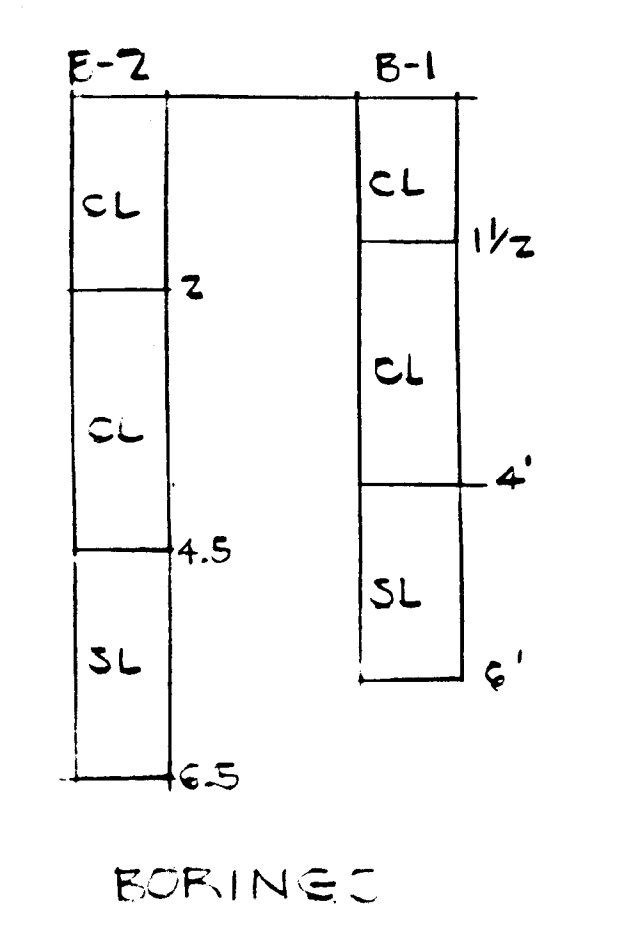
SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MD.
 AS-BUILT 9/25/91

SCALE AS SHOWN
 SHEET 5 OF 12



By the Developer:
 "I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."
 Signature of Developer: [Signature] Date: 11/19/87

Print name below signature
 By the Engineer:
 "I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."
 Signature of Engineer: [Signature] Date: 12-15-87



These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 U.S. Soil Conservation Service Date: 12/4/87

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 Signature: [Signature] Date: 12/4/87

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: [Signature] 12/11/87
 CHIEF: BUREAU OF ENGINEERING DATE: [Signature] 12/11/87
 APPROVED: OFFICE OF PLANNING & ZONING
 CHIEF: [Signature] DATE: 2/1/88

M&H DEVELOPMENT ENG., INC.
 200 E. JOFFA ROAD
 TOWSON, MARYLAND 21284
 822-3000

DES. D.E.
 DWN D.E.
 CHK. V.J.M.
 DATE: 9/25/87

BY	NO	REVISION	DATE
LJB	1	REVISED S.W.M. POND & RIP RAP	9/25/87

STORM WATER MANAGEMENT

SIGNAL HILL ELECTION DISTRICT 6 HOWARD COUNTY, MO
 SCALE AS SHOWN
 SHEET 6 OF 12

POND SPECIFICATIONS

I. SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL

Material

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Compaction

The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Cutoff Trench

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS

A. Corrugated Metal Pipe

1. Materials - (Steel Pipe) - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands. Coupling bands, anti-seep collars, end sections, etc. must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be less than 9 and greater than 4.

Helically corrugated pipe in addition to the requirements above shall have either continuously welded seams or have lock seams which are caulked, during fabrication, with a neoprene bead.

2. Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.
3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.
4. Laying pipe - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the sides.
5. Backfilling shall conform to structural backfill as shown above.
6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. Approved equivalents are AWWA Specification C-300, 301, and 302.
 2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its diameter with a minimum thickness of 3", or as shown on the drawings.
 3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.
 4. Backfilling shall conform to structural backfill as shown above.
 5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.
- C. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

1. Materials

- a. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
- b. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
- c. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
- d. Coarse Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.
- e. Reinforcing Steel - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

2. Design Mix - The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5-1/2 to 6 U. S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:1-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.
3. Mixing - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.
4. Forms - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

5. Reinforcing Steel - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.
6. Consolidating - Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by snading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.
7. Finishing - Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.
8. Protection and Curing - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.
9. Placing Temperature - Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: 12/28/87
 CHIEF: BUREAU OF HIGHWAYS DATE: 12-28-87
 CHIEF: BUREAU OF ENGINEERING, DATE: 12-28-87
 APPROVED: OFFICE OF PLANNING & ZONING
 CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/88

M&H DEVELOPMENT ENG., INC.
 200 E. JOFFA ROAD
 TOWSON, MARYLAND 21204
 828-3060



DES. D.B.			
DRN. D.B.			
CHK. V.J.M.			
DATE	LJB	BY	NO.
	Δ		
			REVISION
			DATE

STORM WATER
 MANAGEMENT

SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MO

SCALE
 AS
 SHOWN
 SHEET
 7 OF 12

TRAP # 3 (ST. V)
 DRAIN. AREA 2.6 AC.
 VOL. REQ. 4680 CF
 VOL. PROV. 4200 CF
 SIZE 40 x 40 x 3
 EX. GR. & OUTLET 278.0
 CREST WEIR 279.0
 BOTT. TRAP 275.0
 LENGTH 505' 11"

TRAP # 1 (ST. V)
 DRAIN. AREA 2.1 AC
 VOL. REQ. 3780 CF
 VOL. PROV. 3900 CF
 SIZE 30 x 50 x 2.6
 EX. GR. & OUTLET 282.0
 CREST WEIR 283.0
 BOTT. FOND 279.4
 LENGTH 505' 9"

TRAP # 2 (ST. V)
 DRAIN. AREA 4.4 AC
 VOL. REQ. 41600-7920 CF
 VOL. PROV. 8100 CF
 SIZE 80 x 33 (I.R.R.) x 3'
 EX. GR. & OUTLET 266.0
 CREST WEIR 267.0
 BOTT. TRAP 263.0
 LENGTH 505' 18"

By the Developer:
 "I/We certify that all development and/or construction responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."
 Signature of Developer: *[Signature]* Date: 11/19/87

By the Engineer:
 "I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."
 Signature of Engineer: *[Signature]* Date: 7-15-87

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.
 U.S. Soil Conservation Service
 Date: 12/14/87

These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.
 Date: 12/14/87

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: *[Signature]* 12/30/87
 CHIEF: BUREAU OF ENGINEERING, DATE: *[Signature]* 12-30-87
 APPROVED: OFFICE OF PLANNING & ZONING
 CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/88

HUDKINS ASSOCIATES, INC.
 200 E. JOPPA ROAD
 TOWSON, MARYLAND 21204
 828-9060

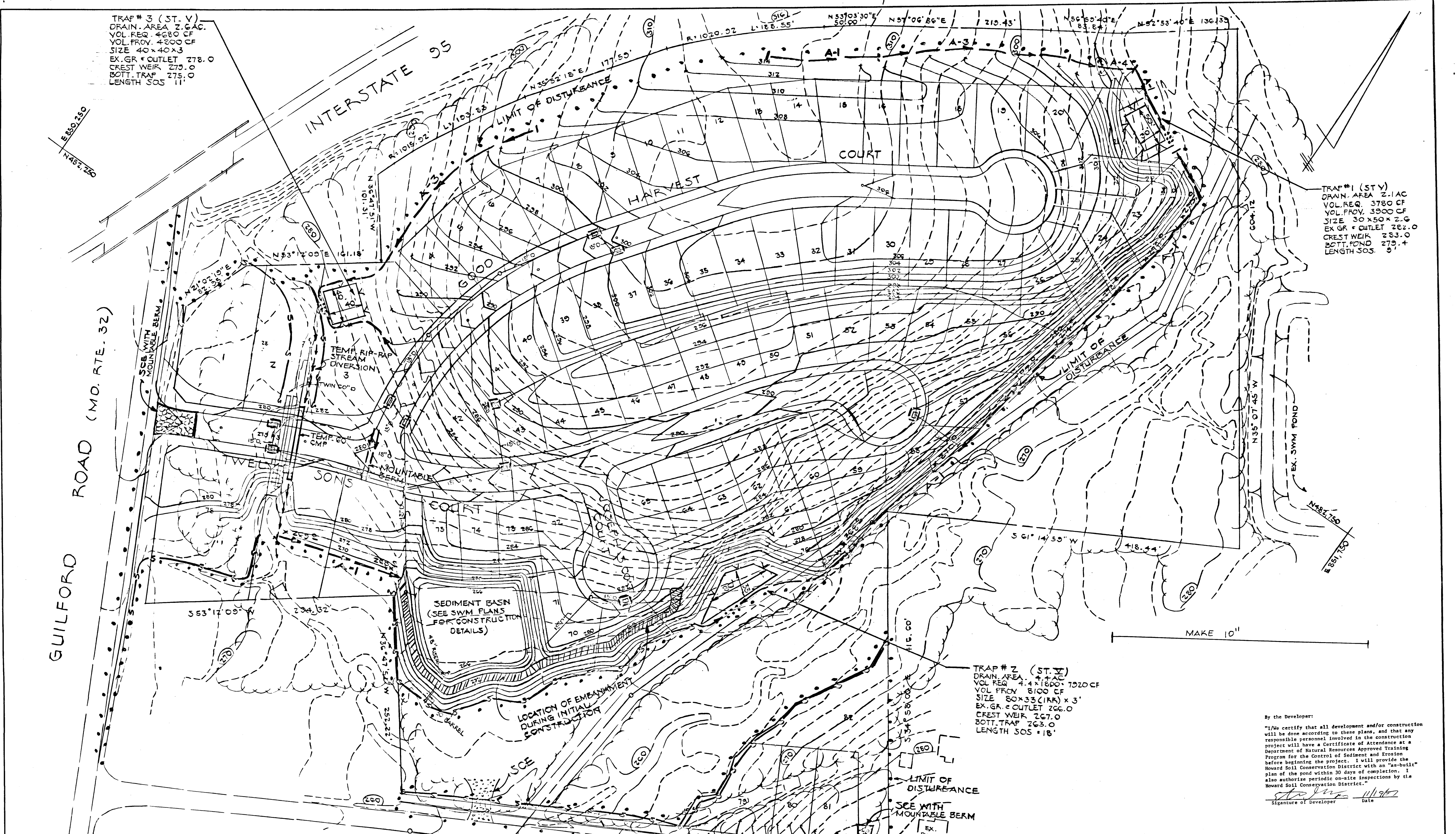
[Signature]
 7-15-87

DES: D.B.	
DRN: D.B.	
CHK: V.J.M.	
DATE:	
BY NO.	
REVISION	
DATE	

600' SCALE MAP NO. _____ BLOCK NO. _____

SEDIMENT CONTROL PLAN
 SIGNAL HILL ELECTION DISTRICT 6
 HOWARD COUNTY, MD.
 AS-BUILT 9/25/91

SCALE AS SHOWN
 SHEET 8 OF 12



1342

7-88-19

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-term vegetative cover is needed.

Seeding Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 200 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Review of disc into upper three inches of soil. At time of seeding, apply 100 lbs per acre 20-0-0 or -0-0-20 fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (12 lbs/1000 sq ft) before seeding. Harrow or disk into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (14 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (0.5 lbs/1000 sq ft) of vernal ryegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use and Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 3 1/2 gallons per acre (8 gal/1000 sq ft) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and transplantings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seeding Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

Soil Amendments: Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

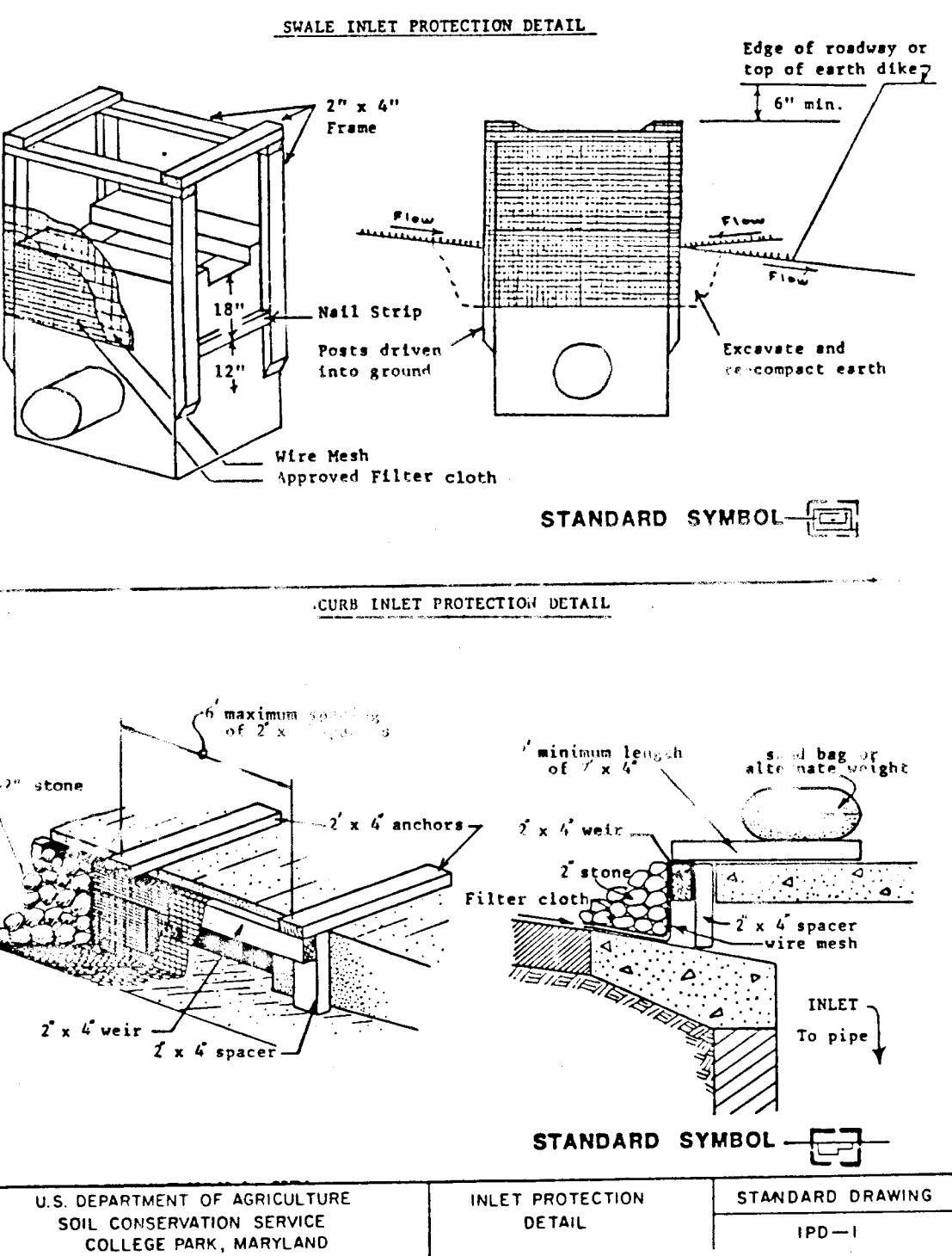
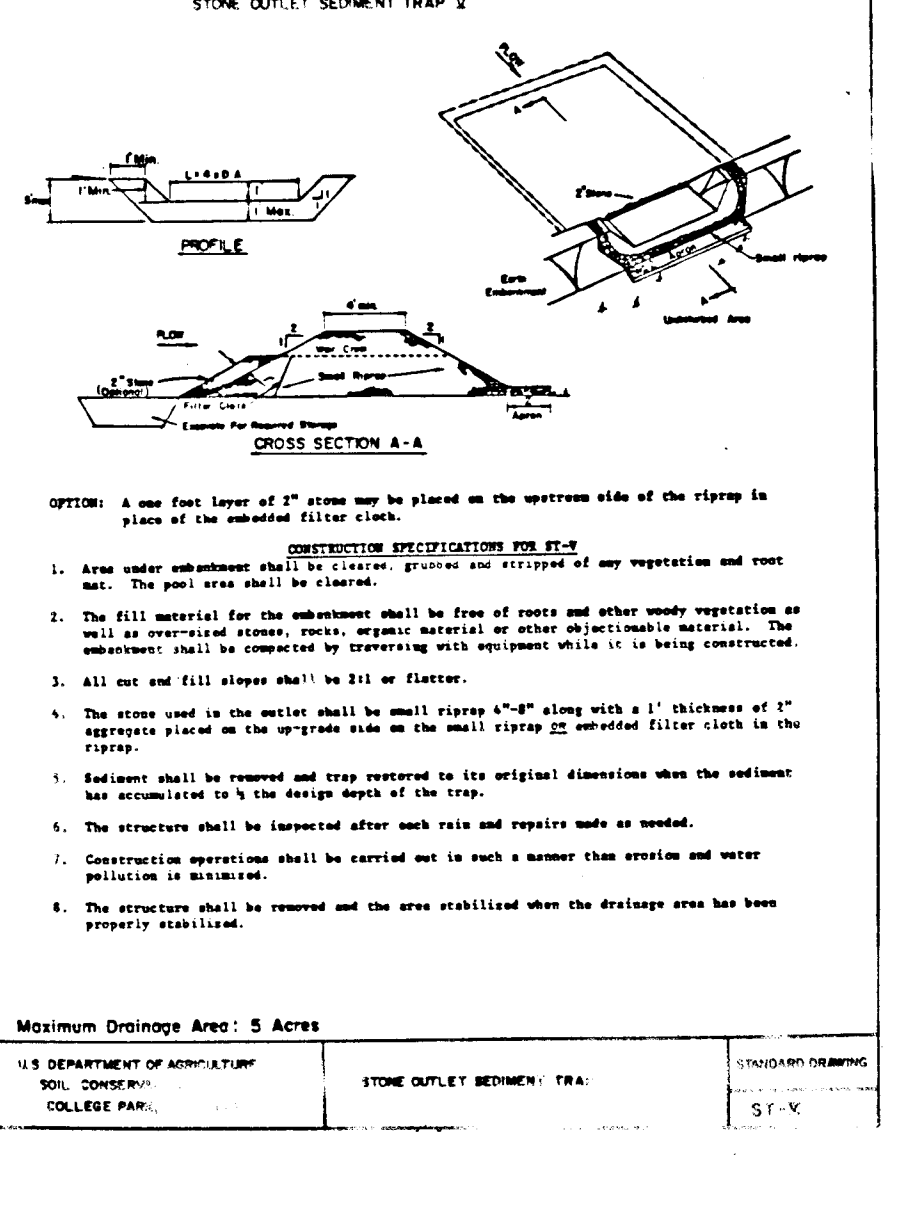
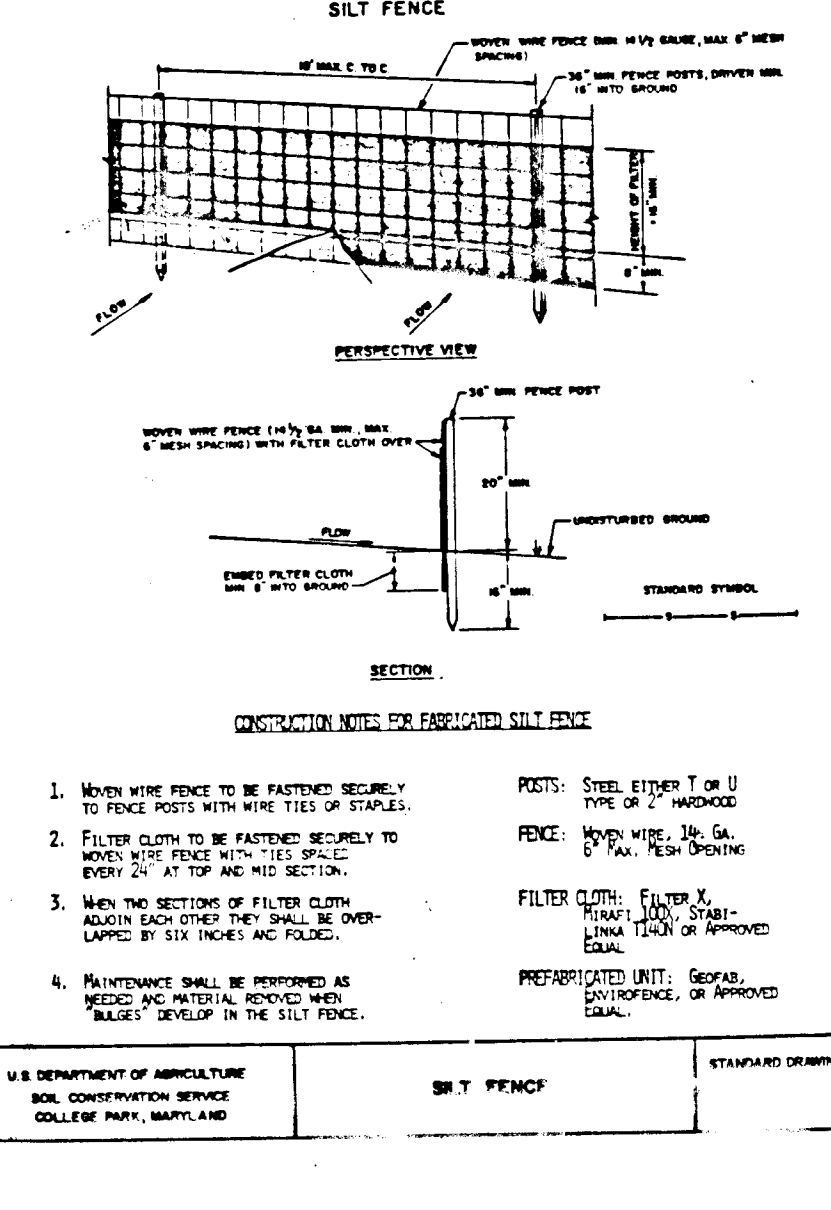
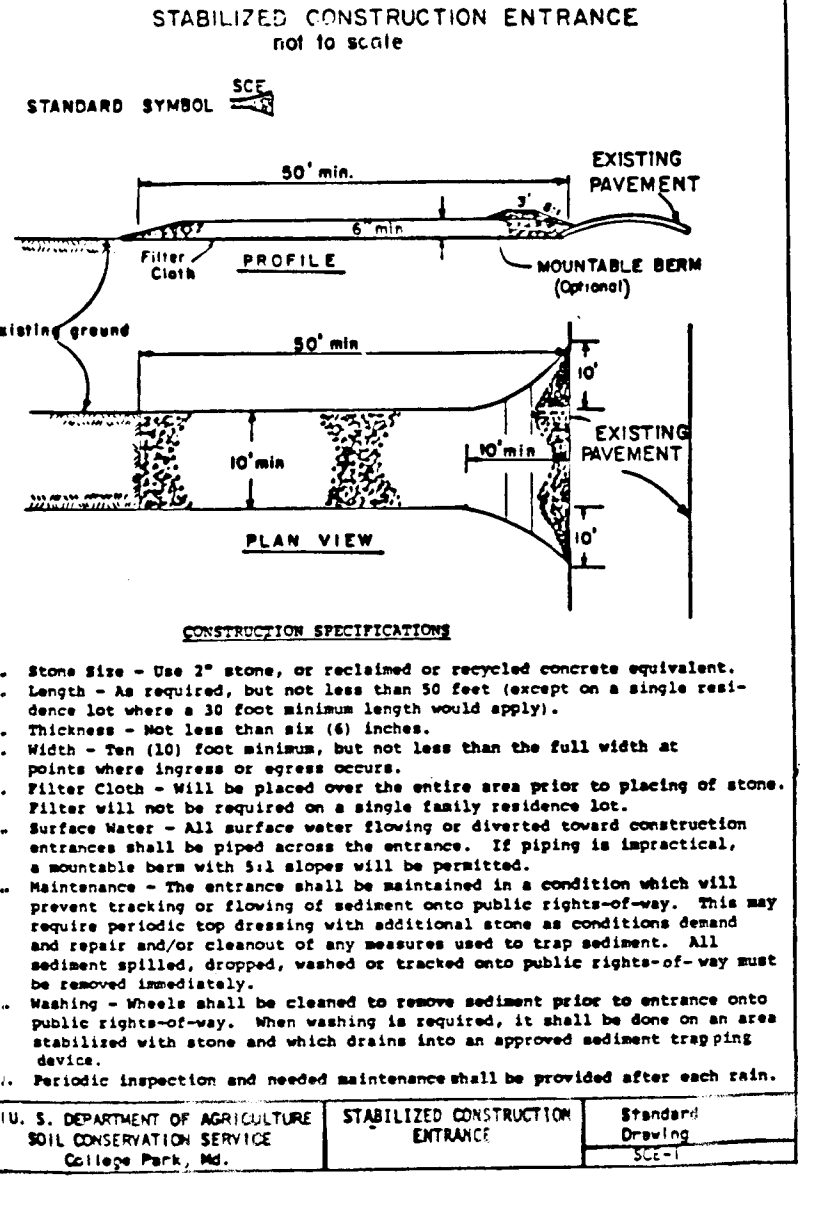
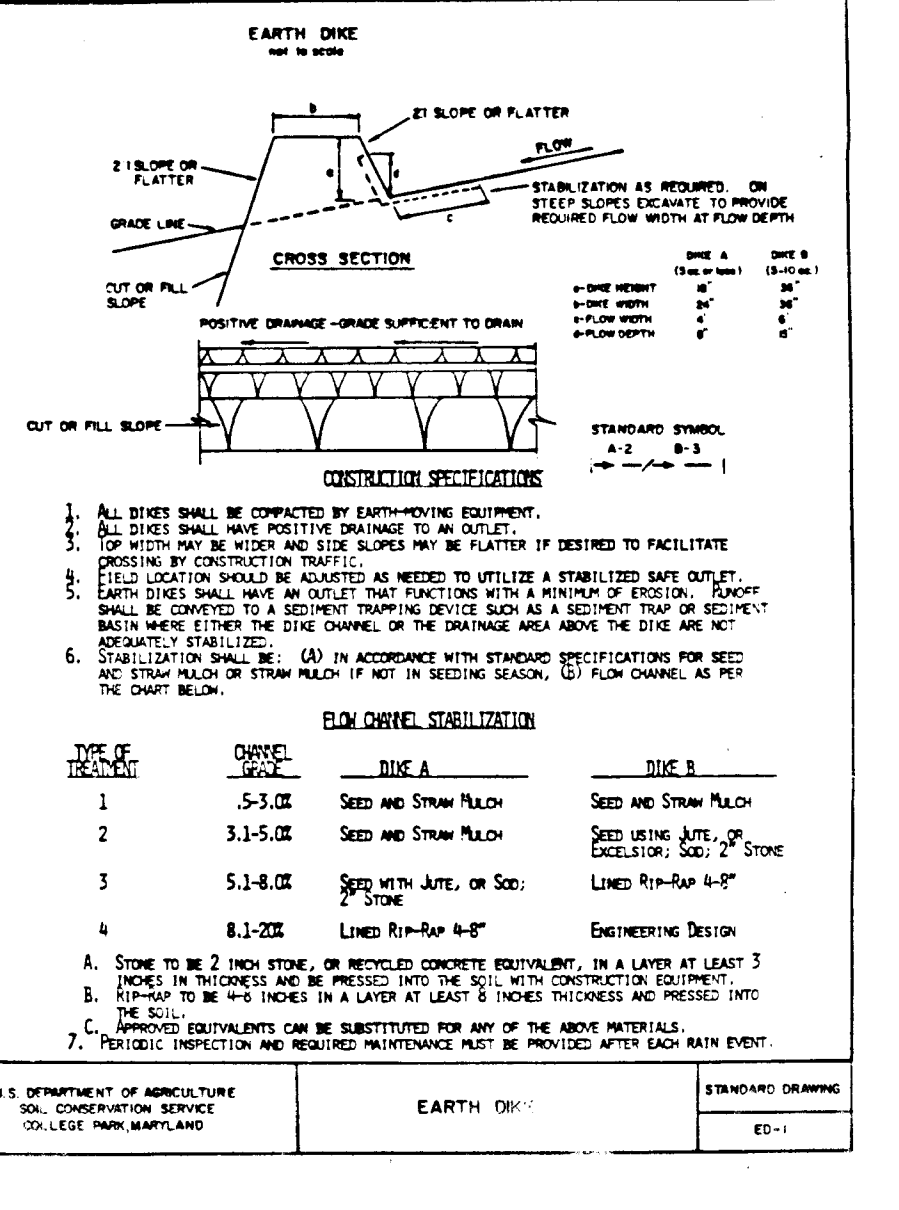
Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 70 bushes per acre of annual ryegrass (12 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of vernal ryegrass (0.7 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring of use seed.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of untreated small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 2 1/2 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 3 1/2 gallons per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rates and methods not covered.

SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following natural soil disturbance or re disturbance, permanent or temporary stabilization shall be completed within a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 42, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) and (Sec. 54), temporary seedings (Sec. 50) and mulching (Sec. 51). Temporary stabilization seeding areas do not allow for proper germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- 7) Site Analysis:
 - Total Area of Site: 10.8 Acres
 - Area Disturbed: 10.8 Acres
 - Area to be seeded or paved: 10.8 Acres
 - Area to be vegetatively stabilized: 0.0 Acres
 - Total Cut: 50,000 cu. yds.
 - Total Fill: 0.0 cu. yds.
 - Off-site waste/removal area location: N/A
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be required upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other grading or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.



SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. NOTIFY THE HO. CO. OFFICE OF INSPECTION AND PERMITS AT LEAST 24 HRS BEFORE STARTING CONSTRUCTION (992-2437)
3. CLEAR & GRUB FOR INSTALLATION OF SEDIMENT CONTROL DEVICES
4. INSTALL SEDIMENT CONTROL DEVICES
5. NOTIFY OFFICE OF INSPECTION AND PERMITS TO OBTAIN APPROVAL OF INSTALLATION
6. ROUGH GRADE SITE
7. INSTALL STORM DRAINS. PROVIDE INLET PROTECTION. NOTE: TEMP. 60" D. SHALL REMAIN IN PLACE UNTIL TWIN 60" D. & GABION CHANNELS ARE CONSTRUCTED
8. REMOVE TEMP. 60" D.
9. PLACE SUB-BASE MATERIALS ON ROADS
10. STABILIZE REMAINING AREAS
11. PAVE ROADS
12. FLUSH STORM DRAINS
13. RESTORE SWM POND TO DESIGN DIMENSIONS & STABILIZE
14. CLASSES 1, 2, AND 3 EARTH DIKES AND SILT FENCE SHALL REMAIN IN PLACE.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
COLLEGE PARK, MARYLAND

INLET PROTECTION
DETAIL

STANDARD DRAWING
IPD-1

APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
CHIEF LAND DEVELOPMENT DIV. DATE: 12-11-87
CHIEF ENGINEERS OFFICE OF HIGHWAY
CHIEF: BUREAU OF ENGINEERING DATE: 12-11-87
APPROVED: OFFICE OF PLANNING & ZONING
DATE: 2/1/88

HUKINS ASSOCIATES, INC.
200 E. JOPPA ROAD
TOWSON, MARYLAND 21204
828-9060

7-16-87

DES: _____

DRN: _____

CHK: _____

DATE: _____

BY: _____

NO. _____

REVISION: _____

DATE: _____

600 SCALE MAP NO. _____

BLOCK: _____

SEDIMENT CONTROL PLAN

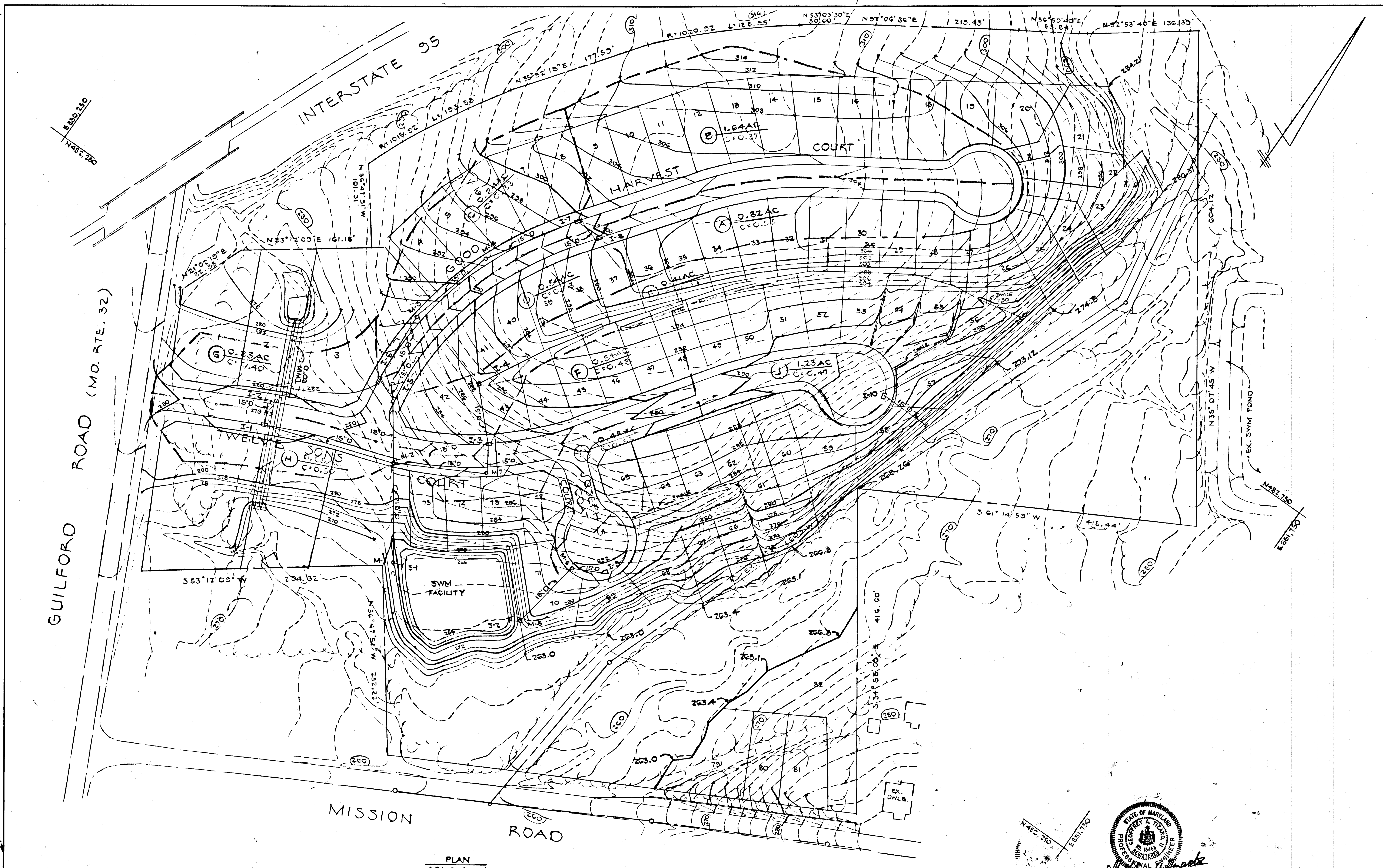
SIGNAL HILL
ELECTION DISTRICT 6
HOWARD COUNTY, MO.

AS-BUILT 9/25/91

SCALE AS SHOWN

SHEET 2 OF 12

F-88-19



PLAN
SCALE 1" = 50'



APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: 12-30-91
 CHIEF: BUREAU OF ENGINEERING DATE: 12-30-91
 APPROVED: OFFICE OF PLANNING & ZONING
 CHIEF: DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/92

THUOKINS ASSOCIATES, INC.
 200 E. JOPPA ROAD
 TOWSON, MARYLAND 21204
 828-3060



DES: D.B.			
DRN: D.B.			
CHK: V.J.M.			
DATE:	BY	NO.	REVISION

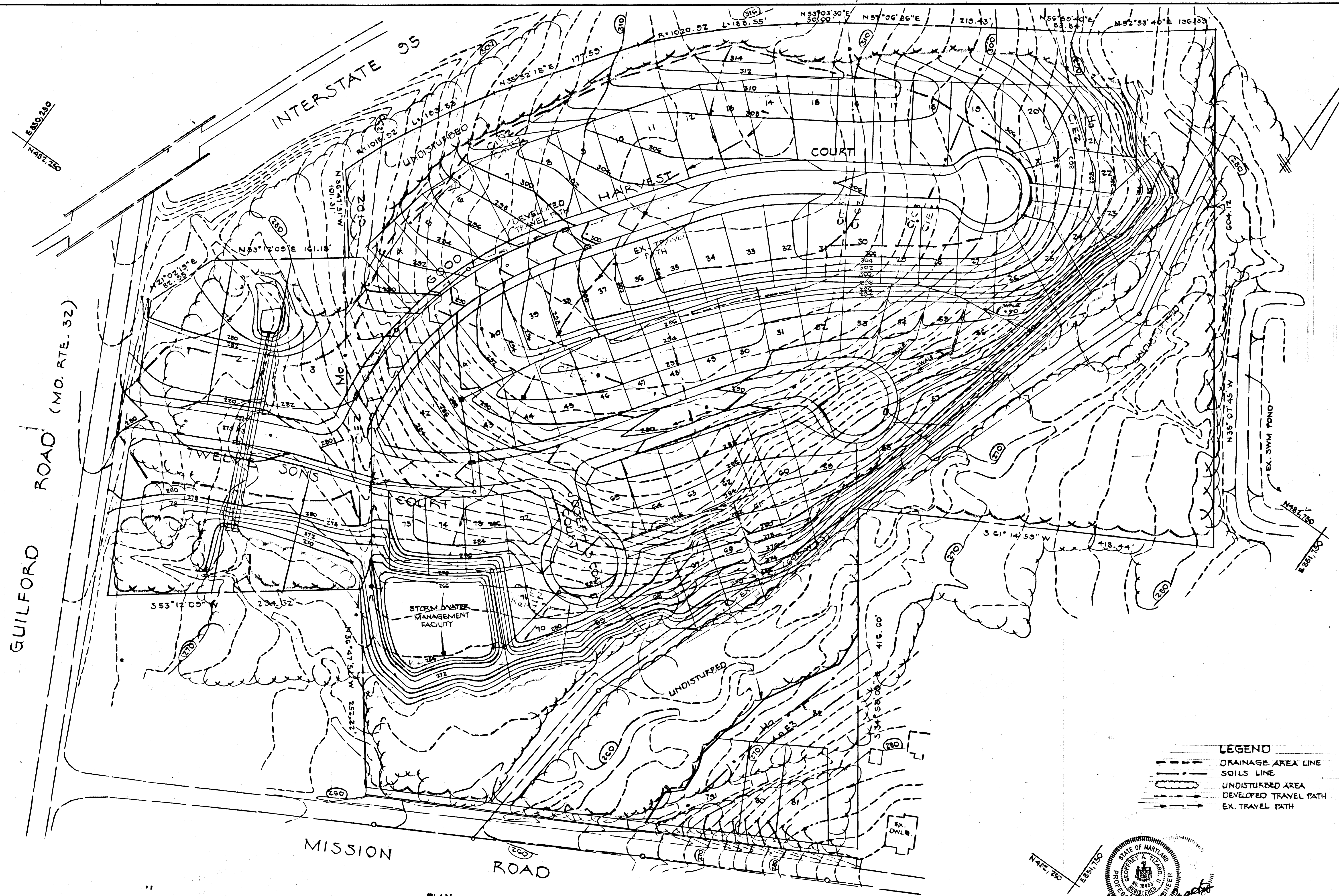
DRAINAGE AREA MAP

DATE: _____ 600' SCALE MAP NO. _____ BLOCK NO. _____

SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MD.
 AS-BUILT 9/25/91

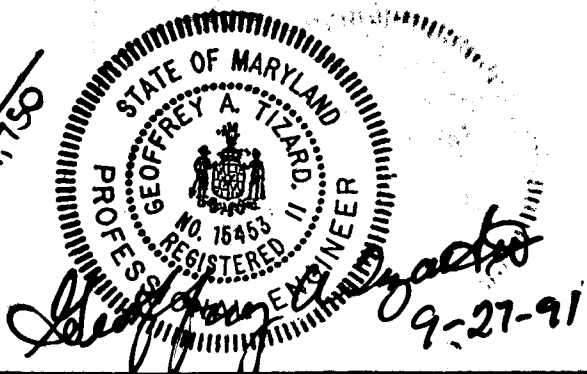
SCALE AS SHOWN
 SHEET 10 OF 12

1342



1342

PLAN
SCALE 1" = 50'



APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF: LAND DEVELOPMENT DIV. DATE: 12/18/97
 CHIEF: BUREAU OF ENGINEERING DATE: 12-22-97
 APPROVED: OFFICE OF PLANNING & ZONING
 DIVISION OF LAND DEVELOPMENT AND ZONING ADMIN. DATE: 2/1/98

HUKINS ASSOCIATES, INC.
 200 E. JOPPA ROAD
 TOWSON, MARYLAND 21204
 828-9060

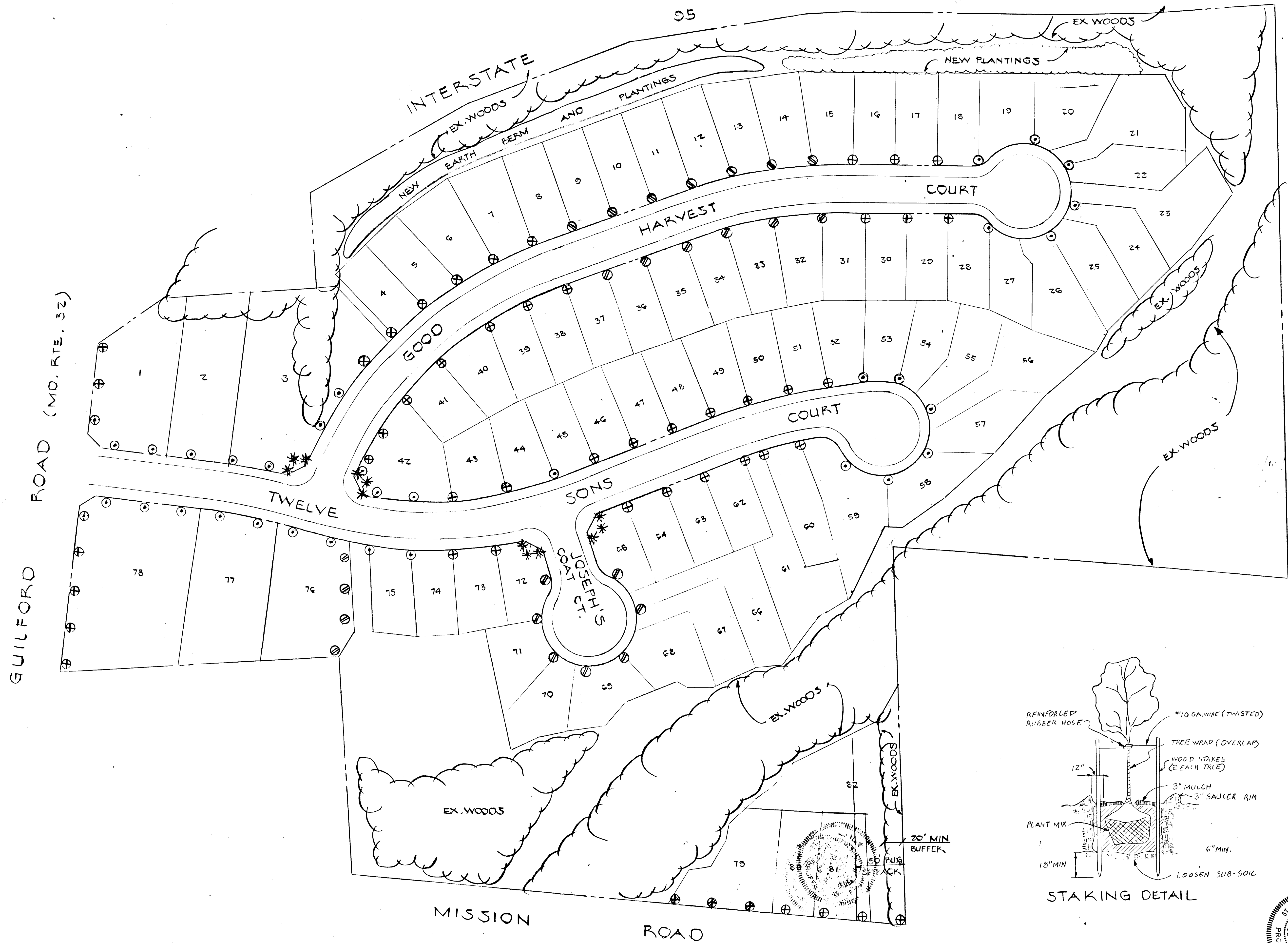


DES: D.B.	
DRN: D.B.	
CHK: V.J.M.	
DATE:	
BY:	
NO.	
REVISION	
DATE	

DRAINAGE AREA MAP
 FOR STORM WATER
 MANAGEMENT FACILITY

SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MD.
 AS-BUILT 9/25/97

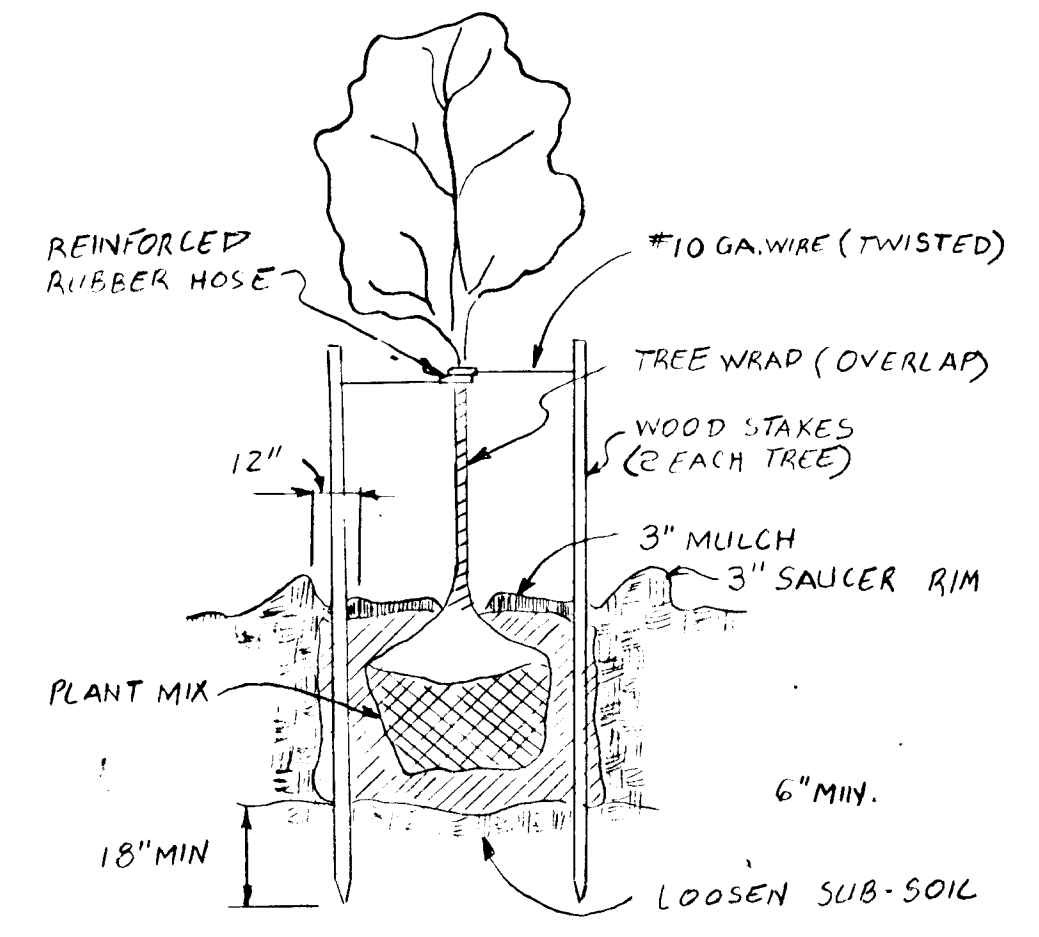
SCALE
 AS
 SHOWN
 SHEET
 11 OF 12



PLANT LIST

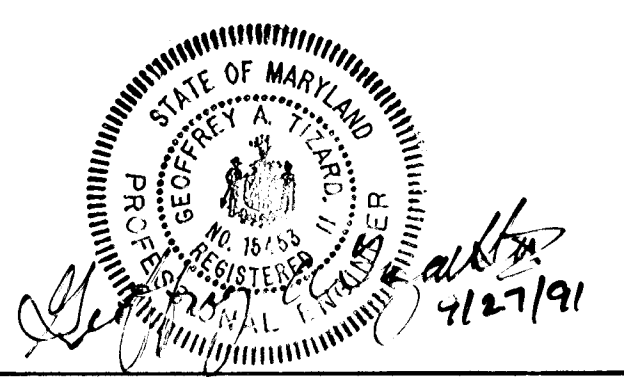
SYMBOL	NAME	QUANTITY
⊕	QUERCUS PALUSTRIS - PIN OAK	49
⊗	LIQUID AMBER, STYFACIFLUA - SWEET GUM	24
⊙	PLATANUS ACEP. IFOLIA LONDON PLANETREE	34

ALL TREES SHALL BE A MINIMUM OF 2 1/2 IN. CALIBER AND 8' MIN. HIGH.



STAKING DETAIL

PLAN SCALE 1" = 50'



APPROVED: HOWARD CO. DEPT. OF PUBLIC WORKS
 CHIEF, LAND DEVELOPMENT DIV. DATE: 12/28/87
 CHIEF, BUREAU OF HIGHWAYS DATE: 12/22/87
 CHIEF, BUREAU OF ENGINEERING DATE: 12/22/87
 APPROVED: OFFICE OF PLANNING & ZONING
 DATE: 2/1/88

HUDKINS ASSOCIATES, INC.
 200 E JOPPA ROAD
 TOWSON, MARYLAND 21204
 828-9060

ARTHUR E. DEMAND
 7-15-87

DES: D.B.			
DRN: D.B.			
CHK: Y.J.M.			
DATE:	BY:	NO.	REVISION

LANDSCAPE PLAN
 600' SCALE MAP NO. _____ BLOCK NO. _____

SIGNAL HILL
 ELECTION DISTRICT 6
 HOWARD COUNTY, MD.
 AS-BUILT 9/25/91

SCALE AS SHOWN
 SHEET 12 OF 12

1342